

contentACCESS

Manual - version 3.0



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Introduction to contentACCESS

contentACCESS is a modular product primarily designed to solve email archive and file archive scenarios in an organization. It uses built-in or custom plugins, which are able to connect with many kind of input systems and process the information as desired. Based on the plugins, contentACCESS is providing email, SharePoint and file management and also archive in the cloud or on premise. With contentACCESS you can choose from many storage systems to store your data – either with the built-in processing or with a completely custom processing workflow.

contentACCESS provides a simple way of just implementing the actual processing task and writing to a storage or archive system of your choice. You can set demanded plugin instances (jobs) in the background for processing these tasks without any need to change your employees' behavior. It also provides methods for accessing stored content regardless of the target, providing unified access. contentACCESS can be fit to customer needs very easily.

Services provided by contentACCESS

- ✓ **Processing plugins:** Processing plugins are responsible for crawling and processing your data. The way of processing data depends on the framework-functions that the plugin has and on further configurations of the plugin. Besides the basic plugins custom plugins are also available. The crawling method is configurable and is offering different optimizations for different use cases. The crawled data can be filtered by data age, size, file type and further specific properties. The plugin selects the crawling method, the filtering and the target storage and is focusing only on the data processing. A typical use case is to archive emails or files into an archive system, or to export to a file system, etc.
- ✓ **Manual archiving tool:** To manually archive emails directly from your MS Outlook or Outlook Web Access contentACCESS uses **Mail app** application. With this application the end user can archive old emails very easily, and also retrieve them at any time with the help of shortcuts which replaced the original item.
- ✓ **Clustering:** Helps to optimize your capacities and divide data processing between more servers to make contentACCESS work more smoothly.
- ✓ **Storages:** The contentACCESS framework is offering the following storage providers out of the box: Disk store (simple disk storage), inPoint, iTernity. Third party storages are possible to be implemented as well.



- ✓ **contentWEB:** contentWEB is a web application running in browsers and also on mobiles (mobile browsers), which provide an easy to use interface for accessing processed and stored content. Its functions include folder browsing, item listing, item paging, item filtering, restoring, exporting and searching.
- ✓ **contentACCESS client access and WEB Services:** contentACCESS provides an API for executing plugins on demand, manually processing emails using plugins, unified access of processed elements.
- ✓ **Mobile access:** The processed data for users are accessible through the contentACCESS Mobile application as well.

Software requirements

The following prerequisites have to be installed on the machine(s) where you want to run the contentACCESS installation wizard:

- MS SQL 2012 Express or Server
- MS Outlook 2010/2013 (64 bit version) or later
- .NET Framework 4.5
- Internet Information Services (IIS) and ASP .NET 4.5

These prerequisites are also checked by the installation wizard. If not installed, SQL, Framework and IIS will be installed directly from the wizard during the installation.

Installation of contentACCESS

The installation package makes the contentACCESS installation process very transparent and intuitive. This section leads you through the dialogs of the installation wizard and describes the step-by-step installation of the product. To run the contentACCESS setup self-extracting package the following is required:

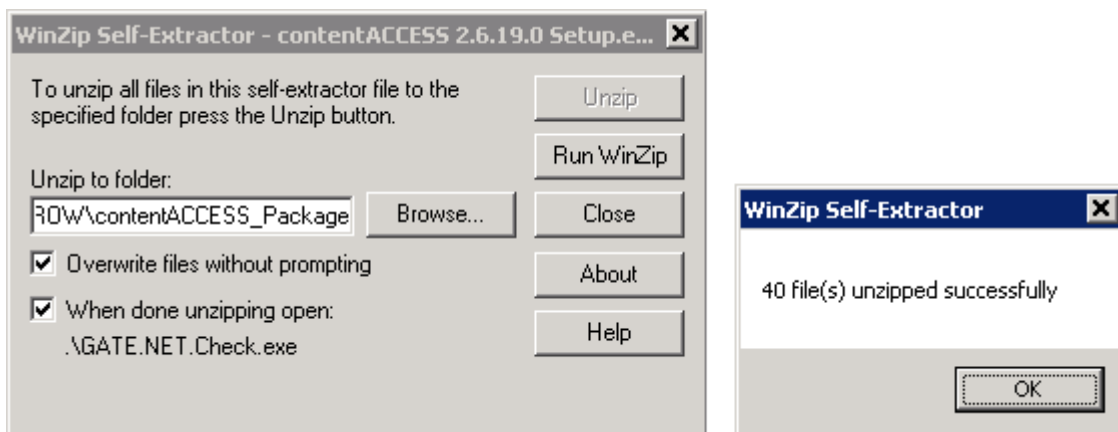
- MS SQL 2012 Express or Server
- MS Outlook 2010/2013 (64 bit version) or later
- .NET Framework 4.5
- Internet Information Services (IIS) and ASP .NET 4.5
- Ability to run the setup as an administrator

What is involved in the contentACCESS setup package?



- Under section **Documentation** the contentACCESS manual and the Best practices to the software can be found, and it also contains a link to the contentACCESS website.
- Under **Planning** the links to hardware and software requirements can be found, and the user may download the **contentACCESS Analysis Tool** right from here. The tool is used to measure the performance of file shares to be archived and also the speed of the desired target store. It is also used to analyze the files that will be archived, and can help to set up the correct file archiving strategy.
- Under **Tools** you can find the links to the Virtual Drive setup, Proxy server setup, Legacy MAM retrieve server setup, for the Outlook forms and from here you can also download TECH-ARROW's WinShortcutter. WinShortcutter is a collection of small and useful utilities that are primarily focused at people working in a Windows dominant office environment with a weak MAC support. It is primarily used to open MS Windows shortcuts (.LNK).
- Under **Products** you can read a short description about other software solutions of TECH-ARROW: contentGATE, streamGATE, officeGATE.
- **Navigate to Installation** button and start the installation process of contentACCESS.

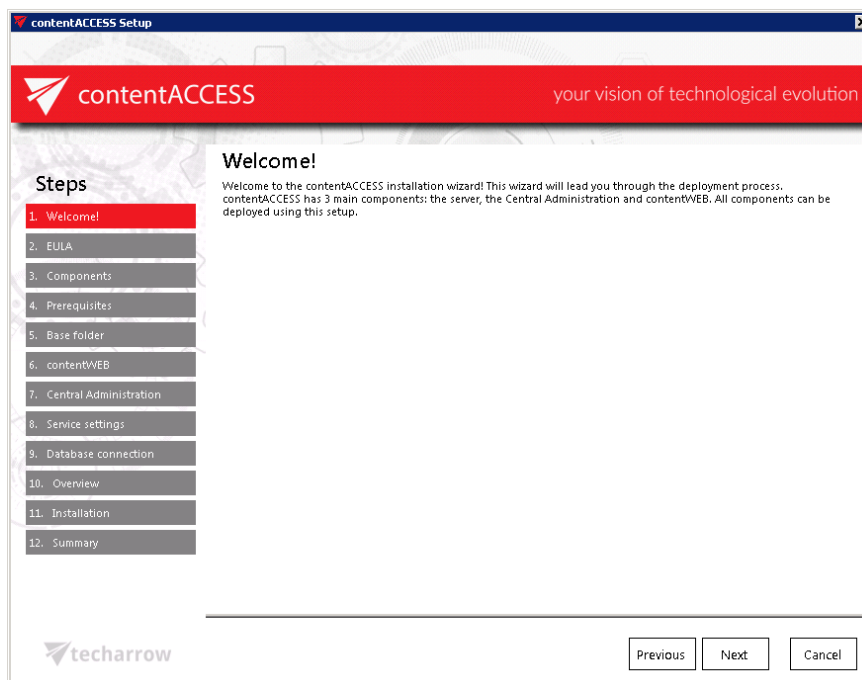
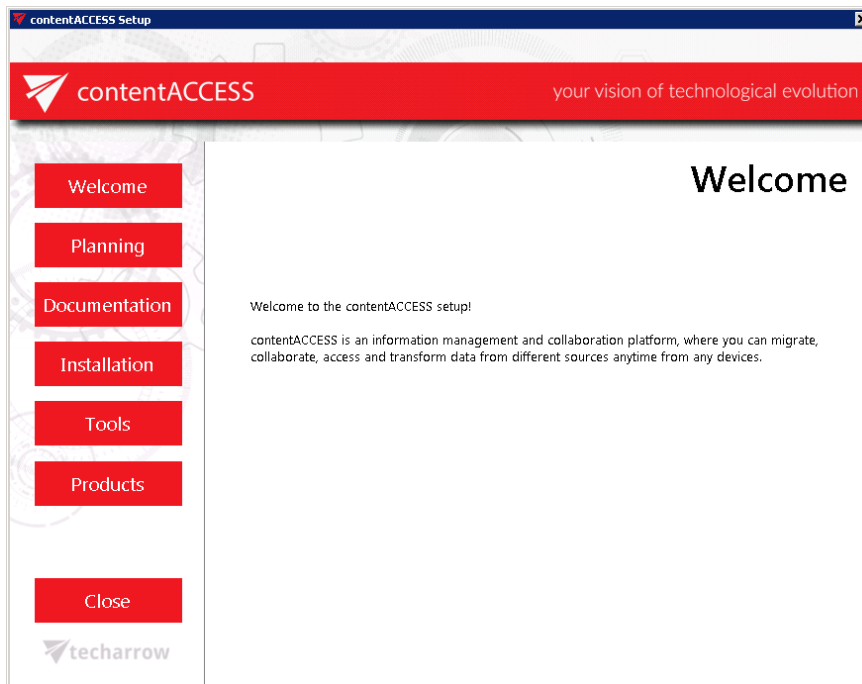
Download and run the setup package (contentACCESS X.X Setup.exe). As default it unzips to **c:\TECH-ARROW\contentACCESS_Package** folder but you can use the **Browse** button if you want to change the directory. Click **Unzip**. After the files have been successfully unzipped click **OK**.



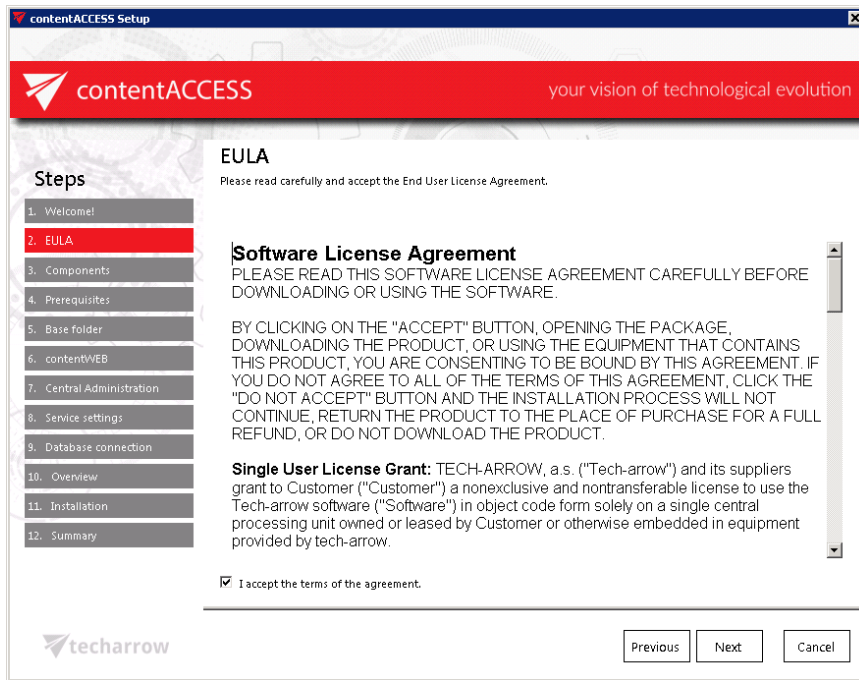
Note: It is a good practice to always unzip to the same directory. This is especially important when updating the product. Keeping the installation in the same folder helps you to run the update always with the same settings.



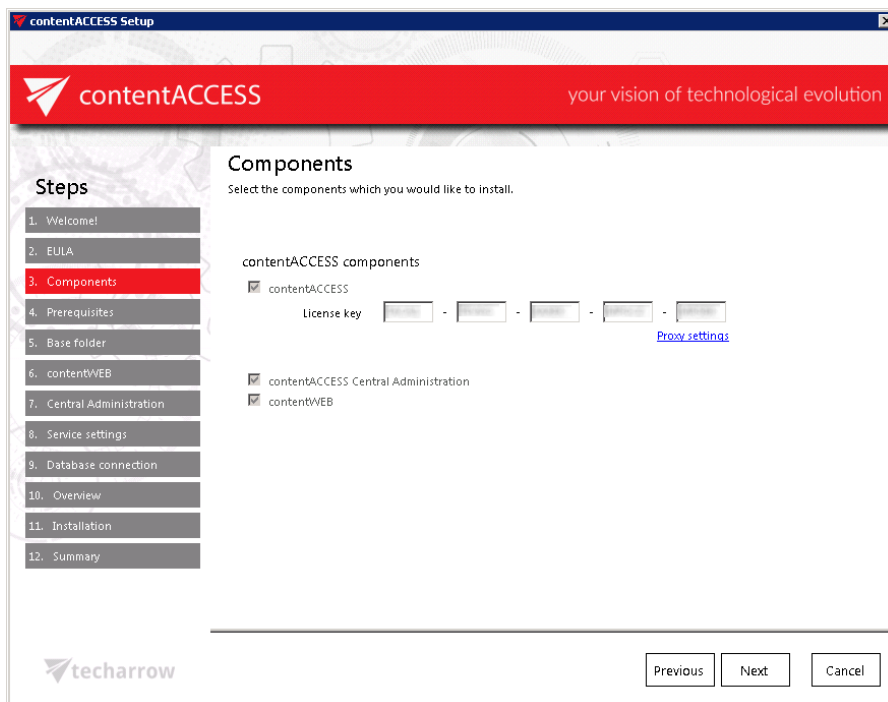
1. **Welcome!** Now the contentACCESS installation wizard will open which will lead you through all the steps of the deploying process. All three components of contentACCESS (the server, Central administration and contentWEB) can be deployed during this deploying process. As 1. step choose **Installation** and then click **NEXT**:



2. **EULA.** After you have read the End User License Agreement carefully check checkbox **I accept the term of the agreement** and click **NEXT**.



3. **Components.** In this step you have to choose which contentACCESS components you want to install on a server. contentACCESS has 3 components: the server, contentACCESS Central Administration and [contentWEB](#). Check all three checkboxes in this step if you want to have all of them on a single server.





Before proceeding with the installation, you need to apply the license. License activation can be done either **a) online** or **b) offline**.

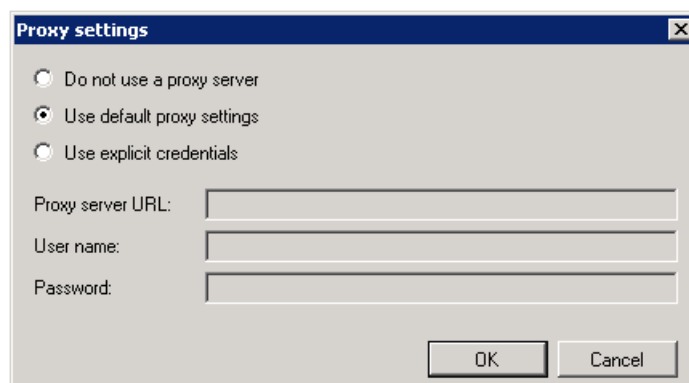
a) If the machine where the setup is running **has internet connection**, you can activate the license **ONLINE**. Follow the next steps:

- Choose **Online activation** in the wizard.
- Enter your license key and click **Next**.
- License will be validated and you can continue the installation.

b) If the machine where the setup is running **has NO internet connection**, you can either **1) use the Web Proxy's credentials to activate the license through the configured proxy server** or **2) activate the license offline**.

1) **Configure the proxy URL** and applicable credentials to the proxy. The proxy that you configure here is used by the licensing component to reach the licensing server for the activation. By default the proxy server is disabled. To enable it, open the **Proxy settings** dialog (option **Proxy settings** in the wizard). You can either

- **Use default proxy settings** that is configured on the contentACCESS server in **Control Panel** → **Internet options** → **Connections** tab → **LAN settings** → **Proxy server** or you can
- **Use explicit credentials** (explicit proxy server URL and user)



If the proxy is configured, you can continue with online license activation based on point a) above.

2) **Activate the license OFFLINE** by following the steps below

- Insert your license key.
- Select the **Offline activation** button and click **Next**.



License Activation Wizard

Enter your license key
Welcome to the license activation wizard. Please enter your license key for the product and select the activation method.

License key
[] - [] - [] - [] - []

Online activation (internet access required)
 Offline activation

Next Cancel

- Activate your product on the offline license activation page of TECH-ARROW. The page can be accessed using the link in the activation dialog:

License Activation Wizard

Offline activation
Please copy the activation request, go to our offline activation web site and we will generate the activation response for you.

License request information
sjv64nPS455AgZ2jae45pSkGbeDCzAL28JDvuiKZ2q5wNR/s
3G9ic2eb5pbGtoSJpP8nO5durmYpDKCx7Qv4Wwcf0rQee
RoiE/2dGB2GRNCvOWdAKxbb1bEwxYQWOImJan89UvsS/
BMTzI97zrV1XWSBGulYdzasLDmqrlhV5qNrMuE6YV/uAt1
V3ui1ZQThFK3uCFzNS4Te2z8p3gWBxsiAFIKkdycdoeiSYL

[Save to file](#)

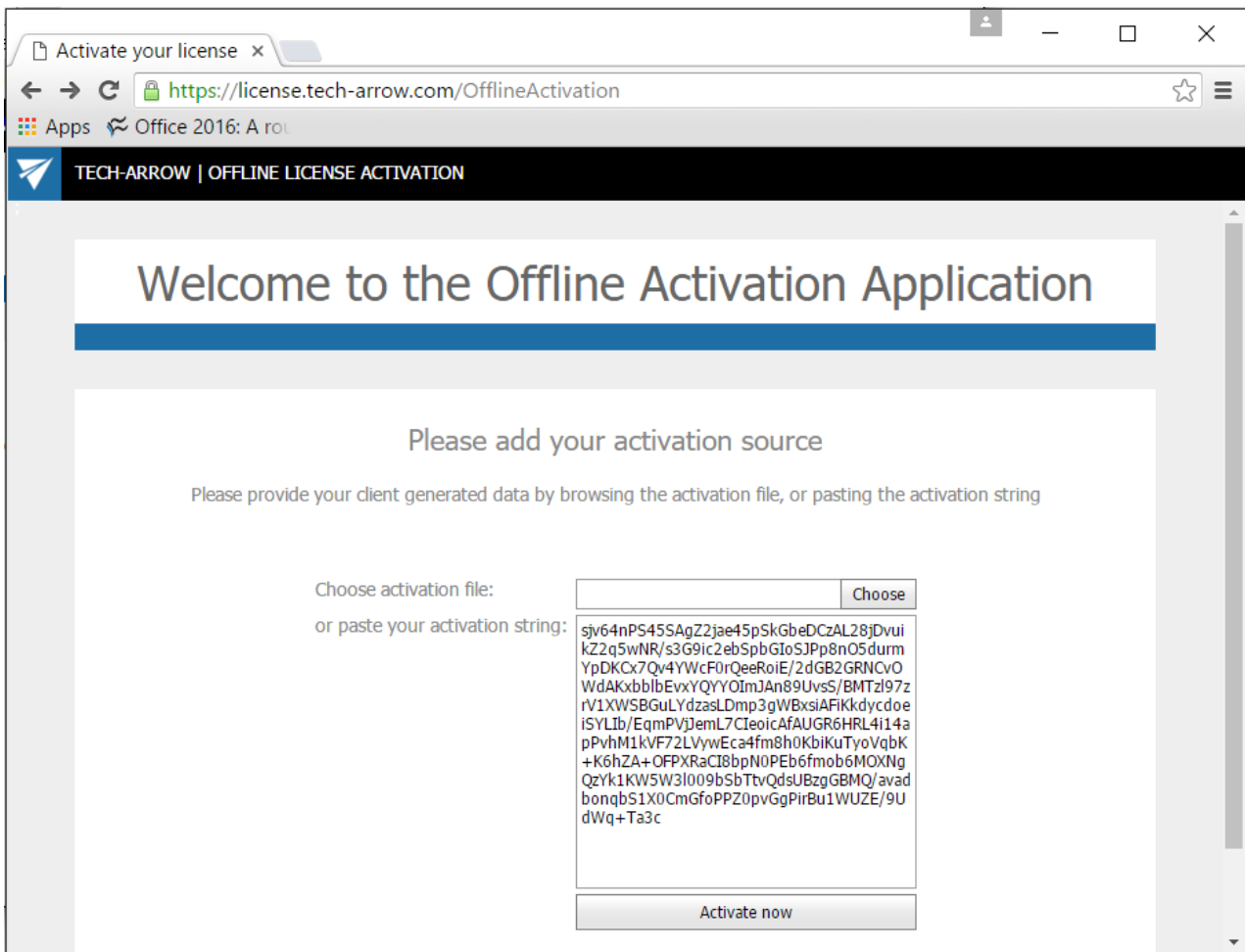
Please activate your product on
<https://license.tech-arrow.com/OfflineActivation>

License activation information
[]

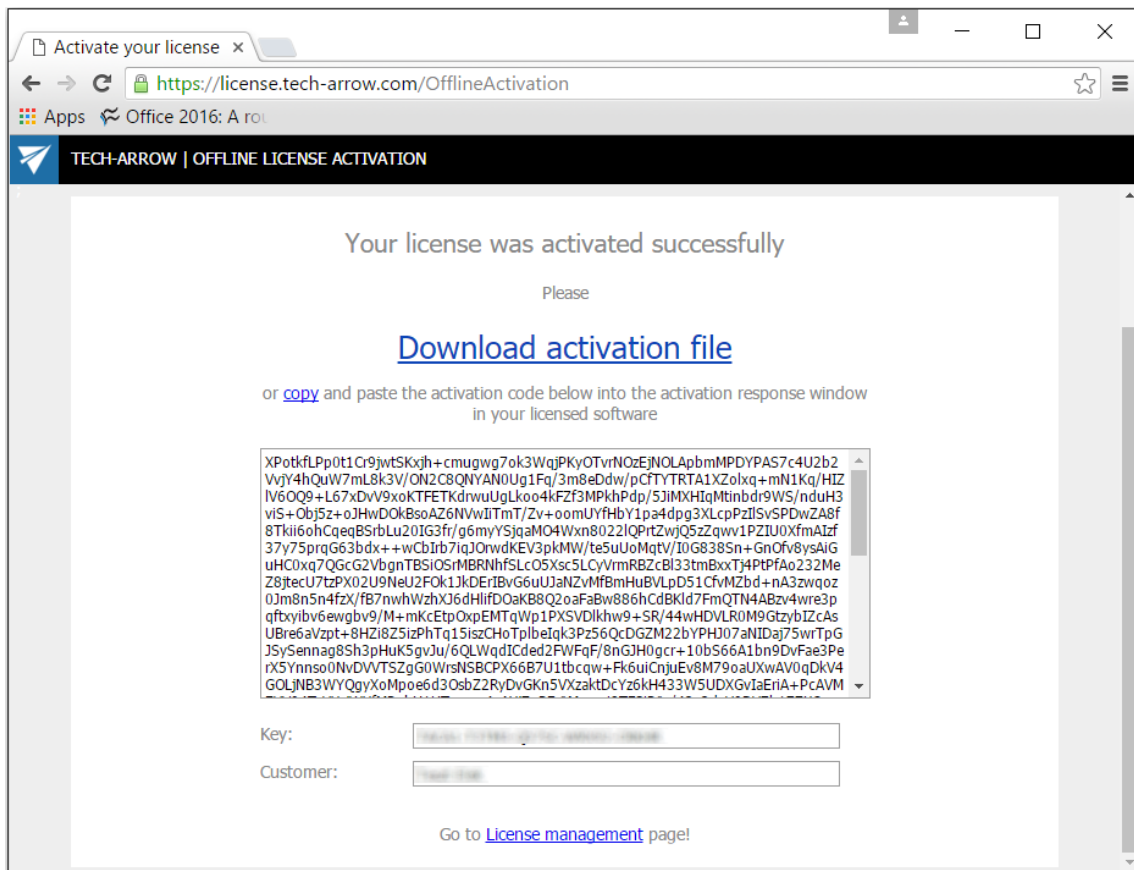
[Load from file](#)

Back Next Cancel

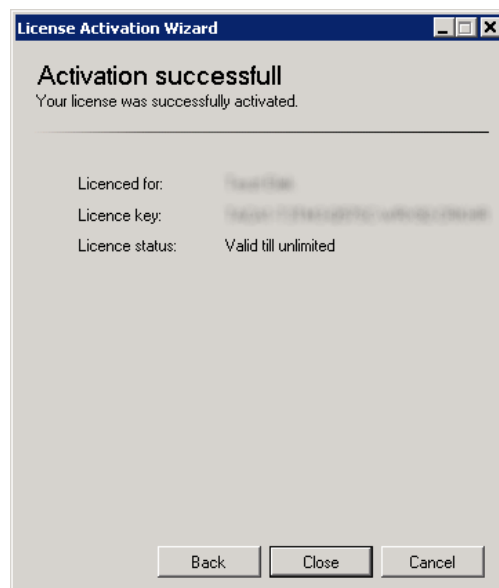
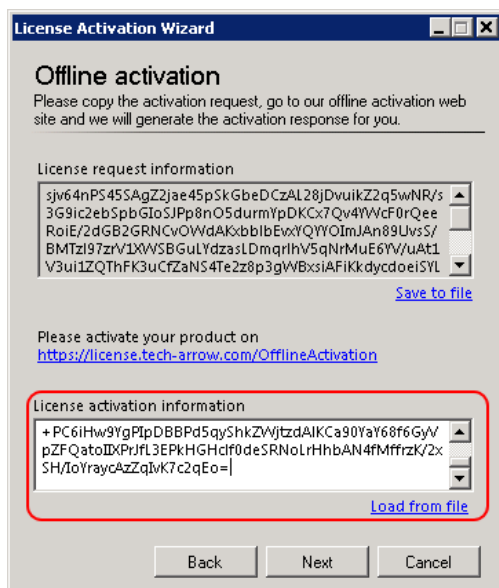
- Copy/paste (or download/upload) the **License request information** from the above wizard and activate it on the offline license activation page. Use the “**Choose**” option to upload the .dat file if you have saved it, or copy the activation string into the text box and click “**Activate now**”.



- Copy/paste (or download/upload) the activation code (1st screenshot below) from the web page to the License activation wizard (2nd screenshot below):



- When you have successfully applied the license, click **“Next”** in the wizard to continue the installation. In the last window click **“Close”** to complete the activation process.

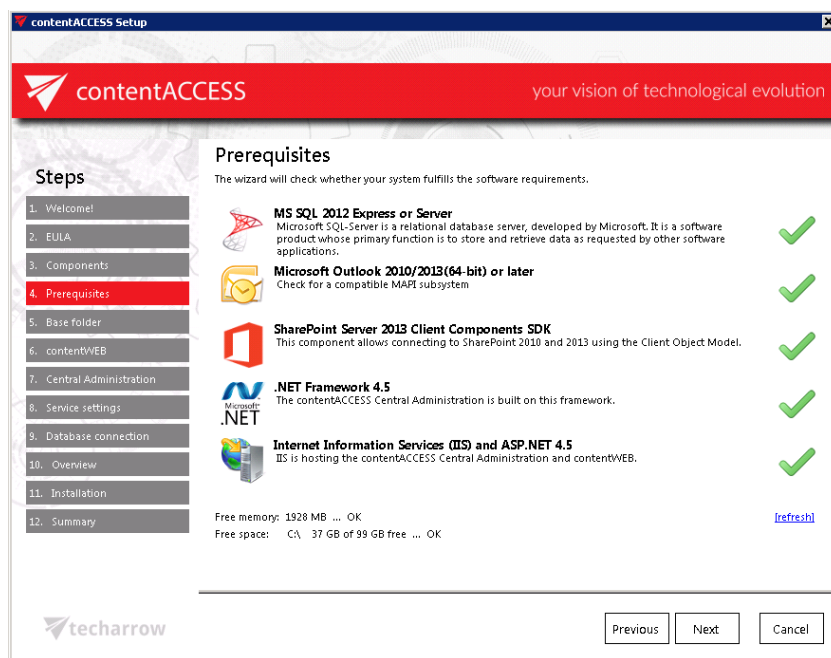





- **Note:** After the expiration date it will be needed to activate the license again. The user can do it in the central administration interface of contentACCESS. For further information refer to section [How to activate your license key](#).

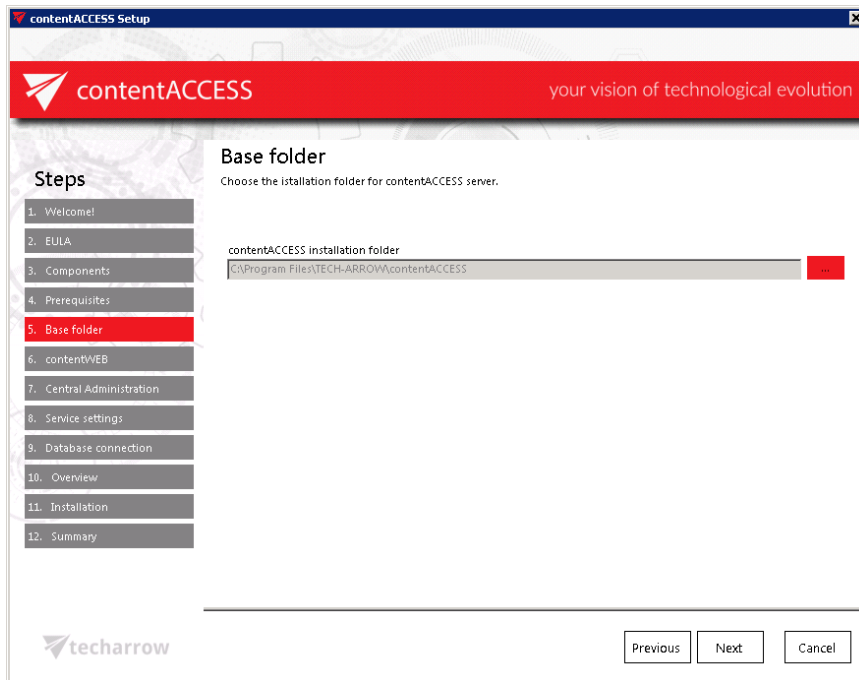
4.Prerequisites. During this step the wizard will check if your system fulfills the software requirements. The missing requisites will be installed during the installation. Use the [refresh](#) button to actualize the prerequisite information after the missing software is installed. One it is ready, the user can continue with the installation process. After the wizard has run the system requirements check click **NEXT**.

For more information about these requirements check the section above: [Software requirements](#).



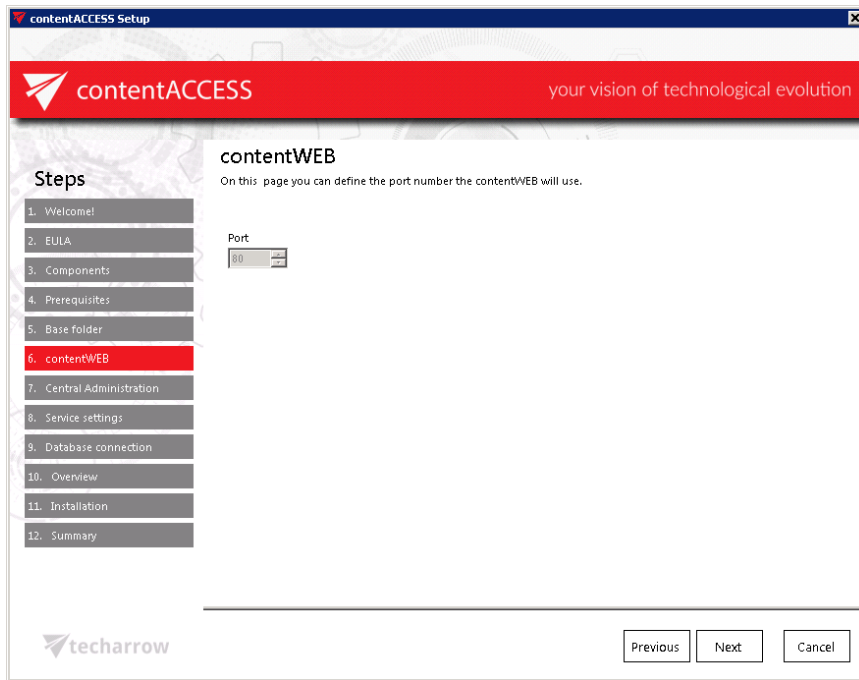
Note: MS Outlook prerequisite will be checked only in case that the license contains email based plugins.

5. Base folder. The next step is to select the installation folder. By default the product installs in C:\Program Files\TECH-ARROW\contentACCESS folder. The installation folder can be changed. Click on the  button and browse for the desired destination. Click **NEXT**.



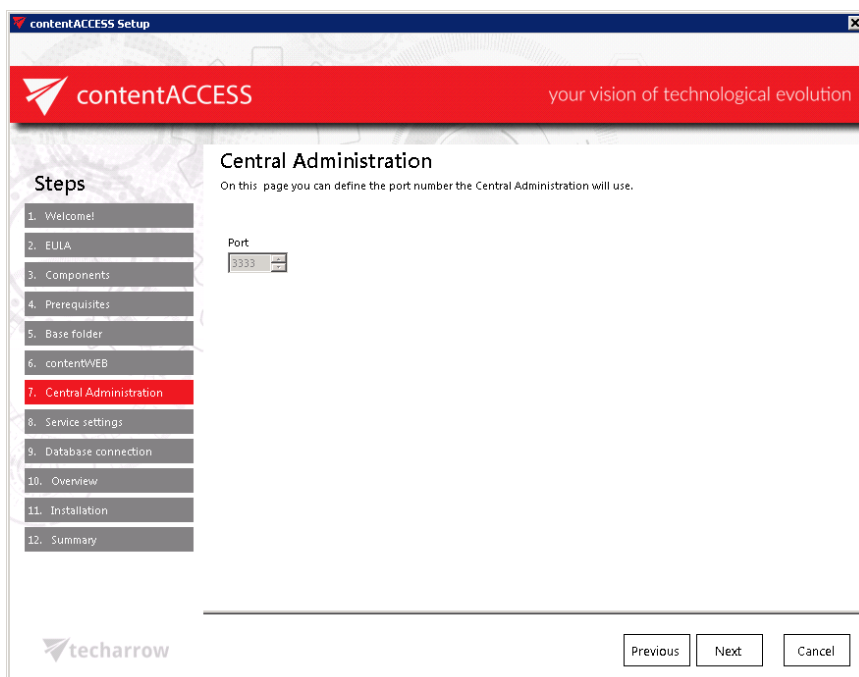
Note: It is a good practice to always use to the same path when updating the software. Keeping the same path when updating the product helps to prevent technical problems that might occur when running the updated version.

6. ContentWEB. On this page you can define the port number that contentWEB (contentACCESS archive user interface) will use. This step will be required only in case that you have selected contentWEB component in step 3 above.



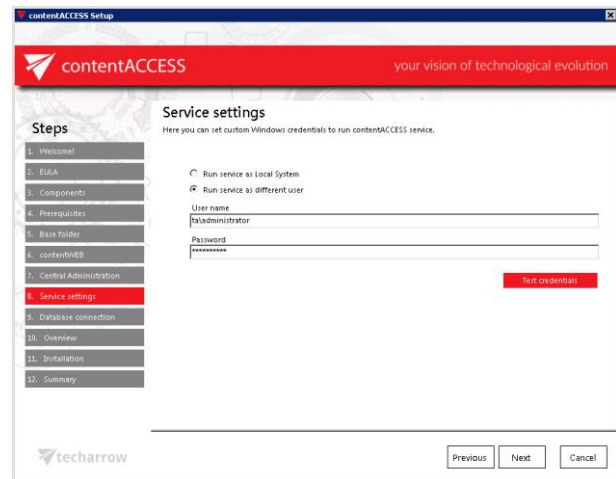
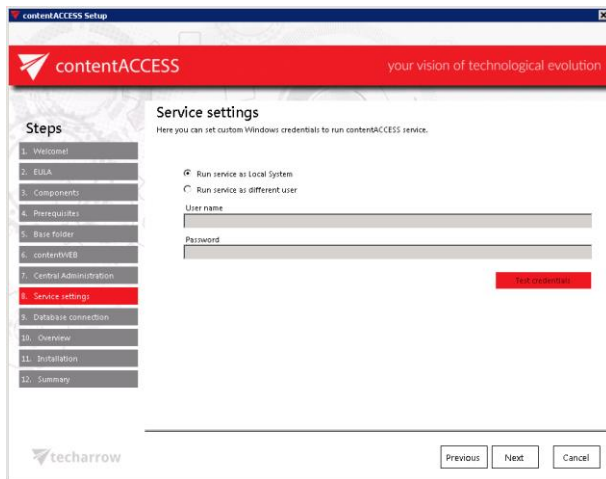
Note: It is always a good thing to select 80 as port number because this port is enabled on Firewall in most of cases.

6. Central Administration. In this step you need to insert the port number that will be needed to access the application for Central Administration. Once the number is inserted click **NEXT**.





7. **Service settings.** The administrator may set here, under which credentials the contentACCESS service should run. There are multiple choices:
- The service can be run as Local System; no credentials are needed;
 - The service can be run under custom Windows credentials (local or domain user); the administrator may run a test also, to verify the Windows credentials are OK.



9. **Database connection.** The next step is to specify the system database server to be used by contentACCESS. contentACCESS is storing data in MS SQL server. If you do not have a database server installed, you can install an SQL 2012 Express (free version) with this installer. In this case check the **Install new SQL Server 2012 Express** radio button and the database will be automatically created with the following credentials:

Database server: [ServerName]\contentACCESS


Database name: contentACCESSSDB

User name: system

Password: cOntent@ccess

Schema: dbo

If you already have an SQL Server installed, select the **Connect to existing SQL server** radio button and follow the next steps:

- Enter the name of the database server into the **Database server** text box, or use the  button to locate it.
- Type the **Database name** into the next textbox. A system database will be created with the name entered here.
- Type in a schema (with an optional name).



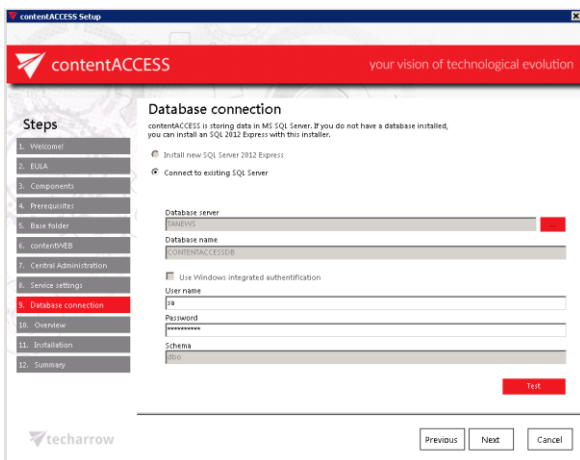
Note: If you are updating to a higher version, then all these above mentioned settings will be preselected and it will not be allowed to change them.

Continue with setting the credentials, over which contentACCESS will connect to SQL server:

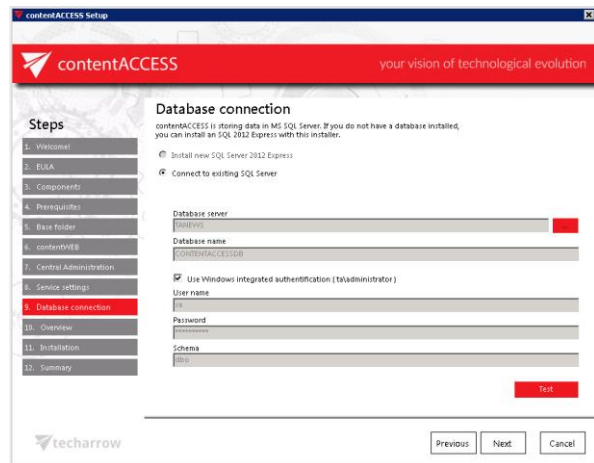
- Enter the SQL user name and password into the textboxes. You have multiple options here: a) You can use either an SQL user, or b) you can use WIA (Integrated Windows Authentication) with checking the “Use Windows integrated authentication” checkbox. In this second case contentACCESS will connect to SQL with the service credentials specified in step 8 above, in the service settings.

Note: The user specified in database connection settings must be allowed on the SQL server first.

If you would like to make sure that all entered data are right run a test connection with a simple click on the **Test** button.

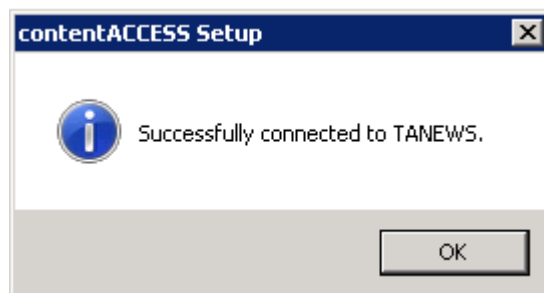


a) Using SQL user



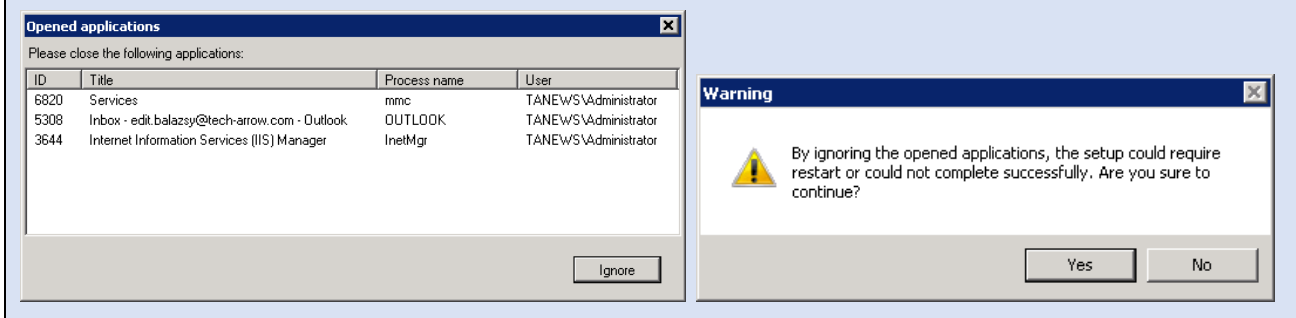
b) Using WIA

If the connection was successfully established the following Setup window will confirm it:

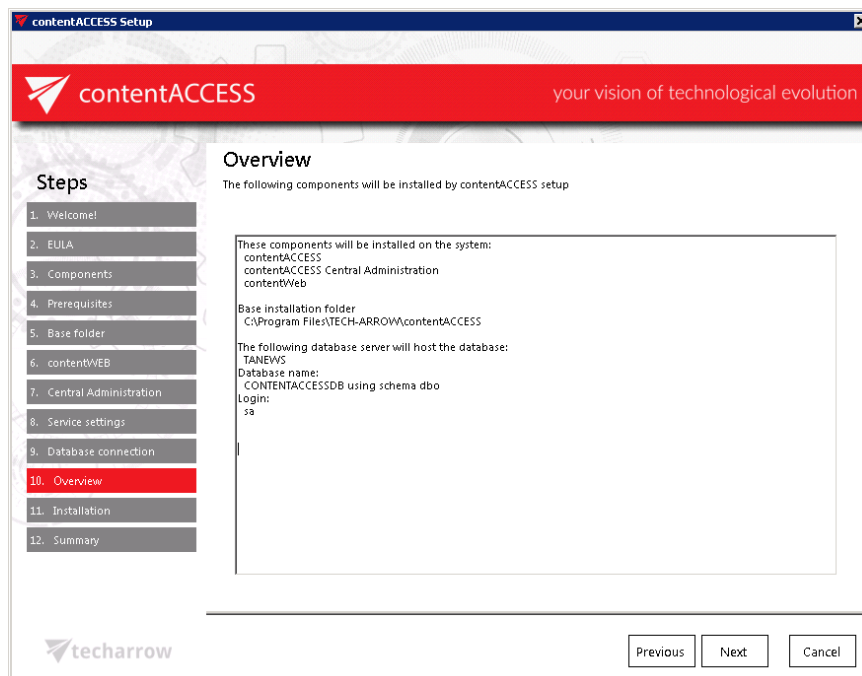


Click **NEXT**.

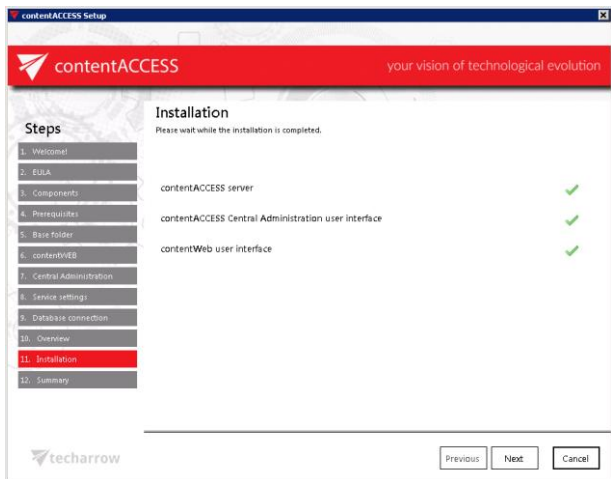
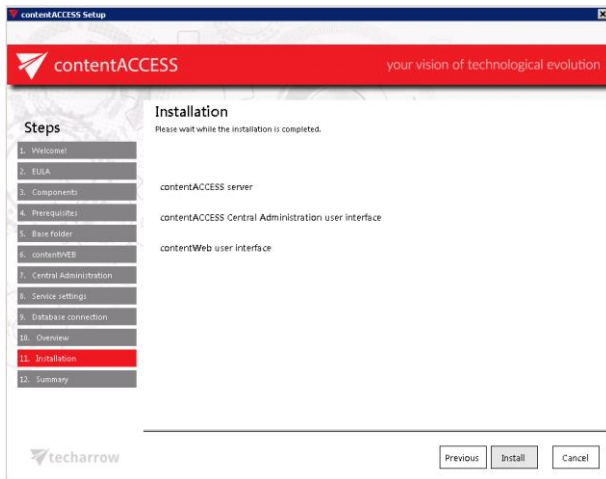
Note: In case that there are unwanted applications running in the background, the setup will warn the user about this. Unwanted applications are: MS Outlook, Services and Internet Information Services. It is possible (but not recommended!!) to kill these applications directly from this window by right clicking on the application in the list and selecting “Kill”. The best approach is to close the running applications manually. You can also skip closing the applications by clicking the “Ignore” button in the pop-up window.



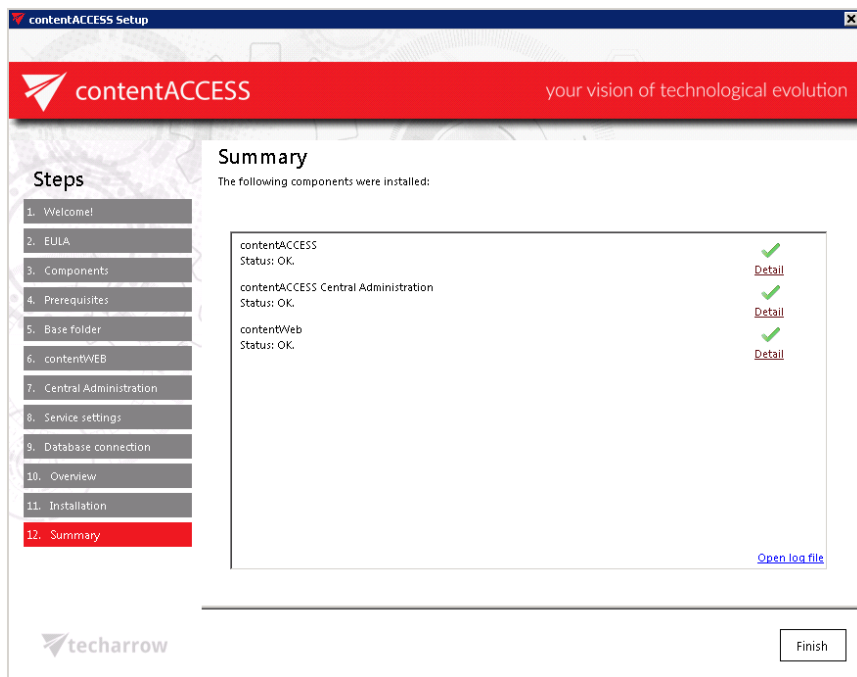
10. **Overview.** In this step the contentACCESS setup gives a general overview about the components that you have selected to install on server. Click **NEXT**.



11. **Installation.** Click **Install** and wait until the installation process is completed. Then click on **NEXT**.



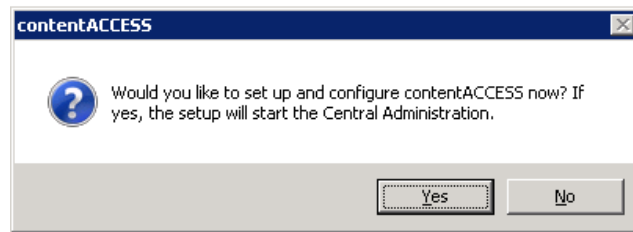
12. Summary window will give an overview for you about the already installed products:



Note: If any problem occurred during the installation process click on [Open log file](#) option in the right down corner of the last setup window (check above). The reason of unsuccessful installation might be included in this log file

Click **Finish** to complete the whole installation process.

After installation is completed and you want to continue with further settings and configurations in the contentACCESS Central Administration, click on **Yes** in the following popup window.



If you want to continue with installing the Virtual drive, Proxy server or the Outlook forms, then click on **No** and continue as follows.

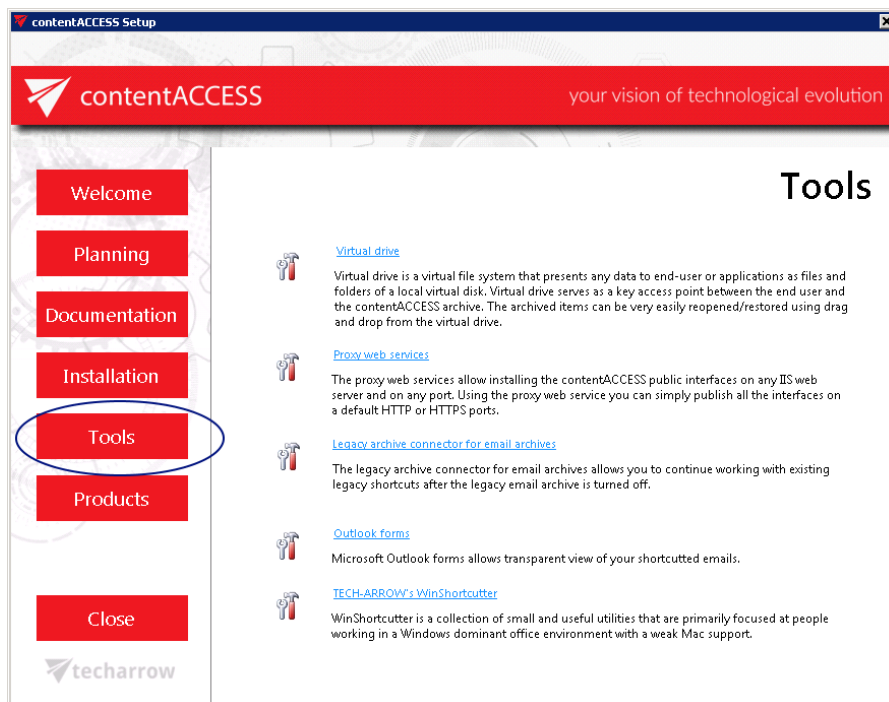


contentACCESS Tools

The contentACCESS setup package is extended with

- **Virtual drive** (used for shortcut retrieve and to view the archived roots; more information in section [File Archive](#)),
- **Proxy web services**,
- **Legacy archive connectors** (used to access the legacy email archives [MAM EE and ELM]; for more information check section [Legacy email archive connectors](#)),
- **MS Outlook Forms** (further mentioned in section [Email Archive](#)).

From here you can download **TECH-ARROW's Winshortcutter** as well. (For more information click [here](#).) Here you can also read a short description about these extensions of the contentACCESS setup:



Installing Virtual drive

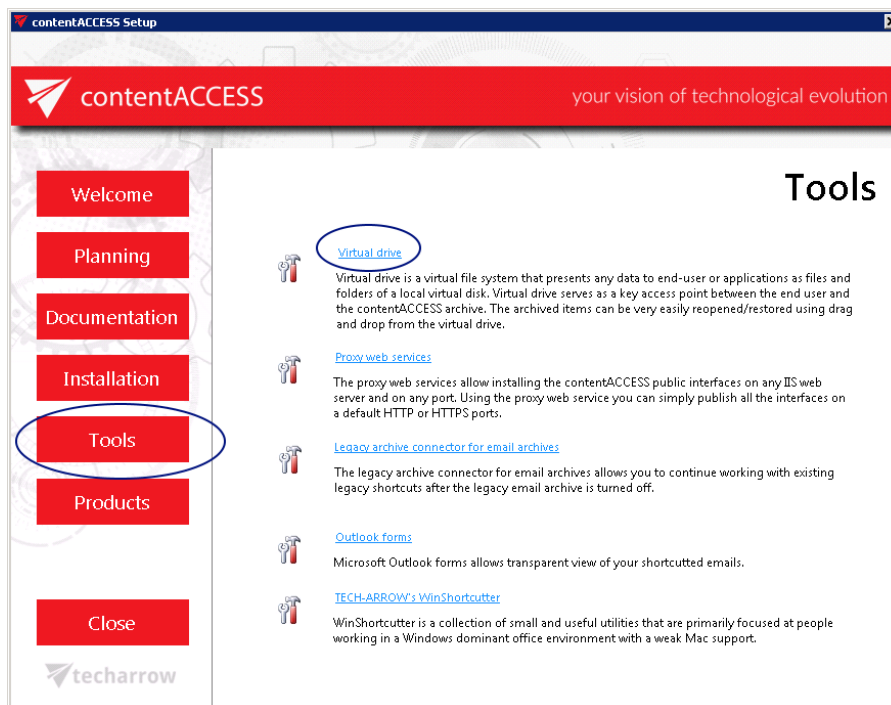
What is a virtual drive? It is a virtual file system that presents/virtualizes any data (files and folders of an actual disk) to the end-user. Virtual drive is a non-existing drive that does not physically exist in



the computer, but it contains the exact structure of the items that have been processed by contentACCESS.

The contentACCESS Virtual Drive was developed by TECH-ARROW and serves as a key access point between the end user and the contentACCESS File Archive. **Virtual Drive is a must have-tool for customers who have contentACCESS File system archive and would like to use the shortcutting feature. The archived items can be also viewed from this drive by the end users.**

How to install the Virtual drive? Navigate to the **Tools** button in the contentACCESS setup window, and click on option [Virtual drive](#). For further information **how to install Virtual drive** refer to contentACCESS Virtual Drive Installation Manual [here](#).

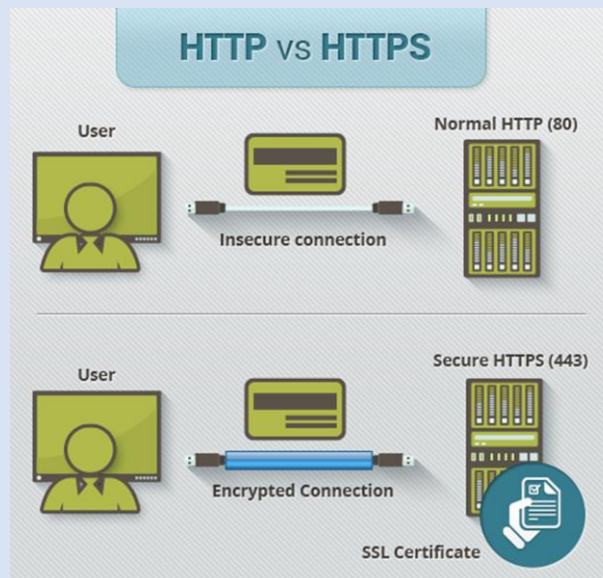


Installing the Proxy server (contentACCESSWS)

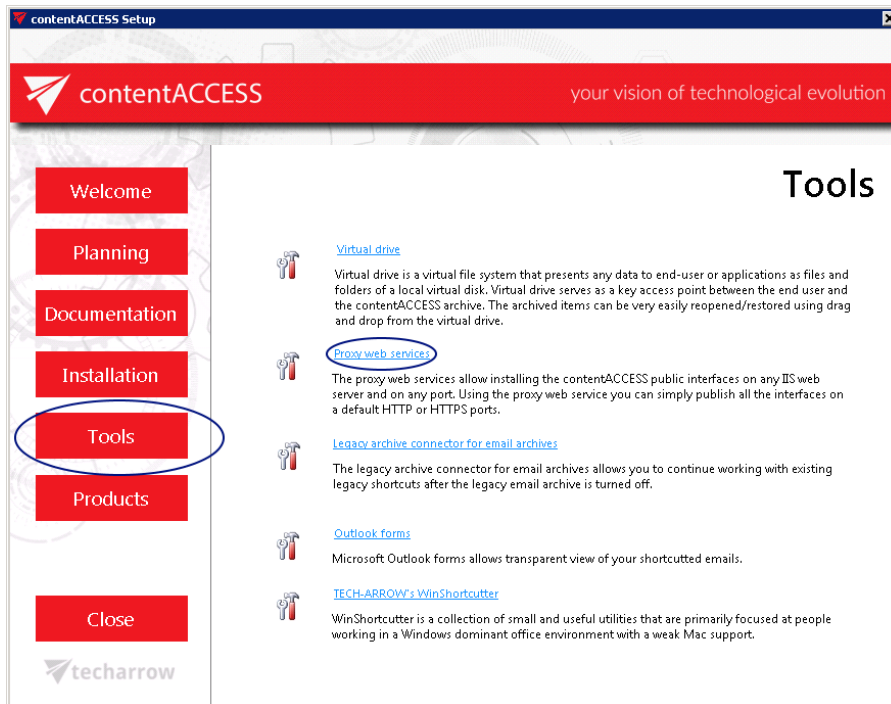
Most of the companies understood, that sensitive information/data should be transmitted using a secure connection. TECH-ARROW also reacted on this demand and offers a secure connection, i.e. HTTPS connection to enable communication between the user and the contentACCESS server. To enable to use HTTPS security, it is required to install a proxy server, which will enable for the user to communicate with the contentACCESS server.

Proxy server is a must-have tool for customers who have contentACCESS Email Archive (or any email based plugins) and would like to use the shortcutting feature or use accessGATE mobile.

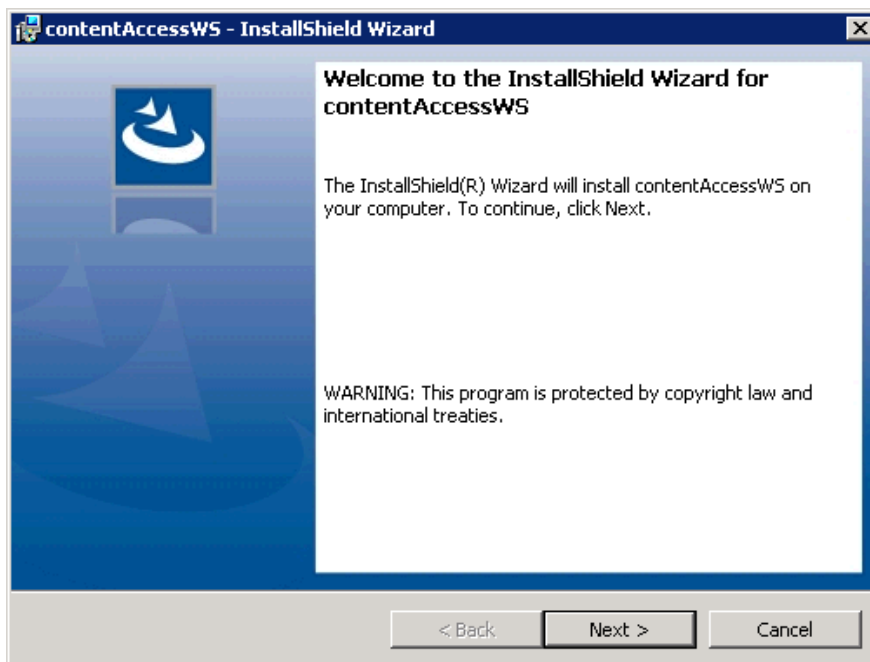
Note: Hyper Text Transfer Protocol Secure (HTTPS) is the secure version of HTTP the protocol over which data are sent between client (as in our case the Outlook form) and the contentACCESS server that you are connected to. The “S” at the end of HTTPS stands for “Secure”. It means all communications between the client and the server are encrypted. HTTPS is often used to protect highly confidential online transactions. HTTPS pages use one of two secure protocols to encrypt communications – SSL (Secure Socket Layer) or TSL (Transport Layer Security)(proxy that we will install uses SSL). Both of these protocols use what is known as asymmetric Public Key infrastructure (PKI) system. This PKI system uses two “keys” to encrypt communications, a “public key”, and a “private key”. Anything encrypted by the public key can only be decrypted by the private key and vica-versa.



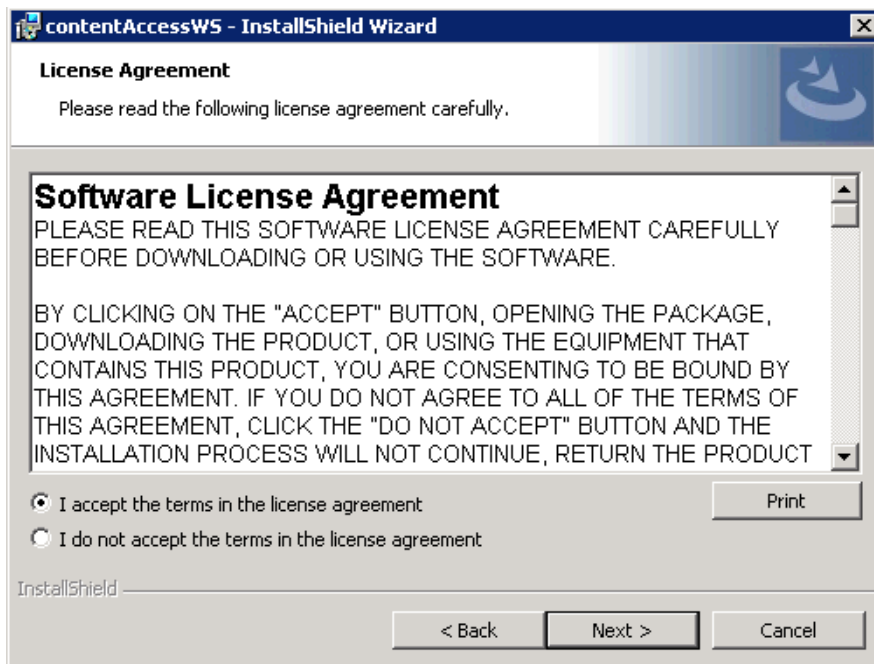
In the contentACCESS installation wizard, navigate to **Tools** → click on [Proxy web services](#) option. The installation wizard will open and will guide you through the installation process.



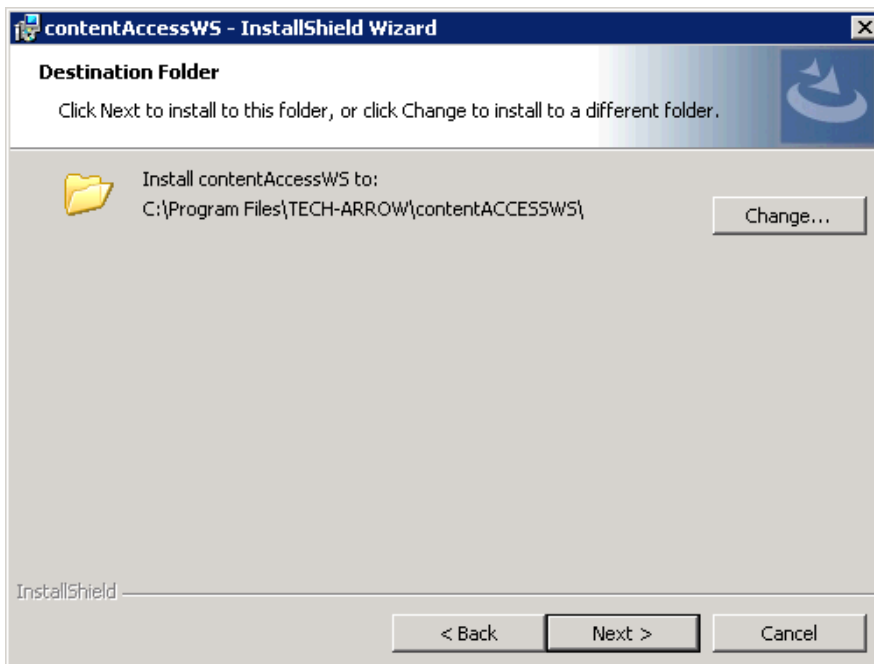
In the contentAccessWS – InstallShield Wizard window click on Next:



In the next step accept the Software license agreement, and click on Next:

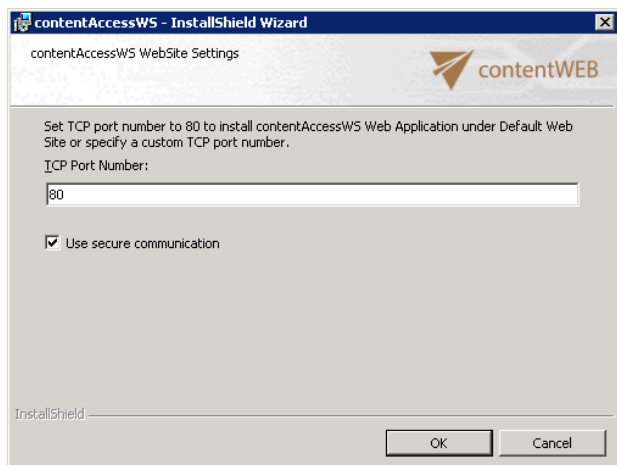
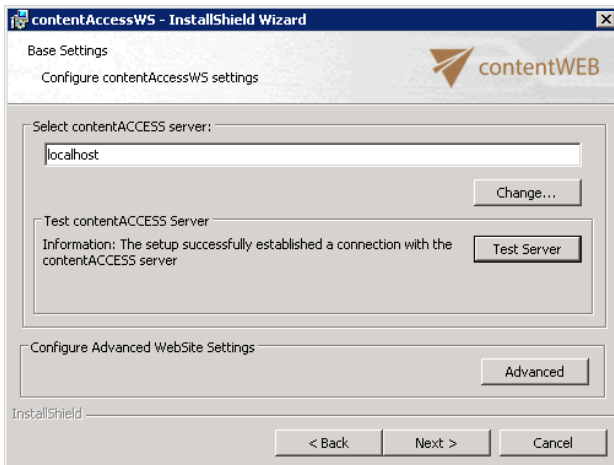


Change the destination where you want to install contentACCESSWS. By default it installs to C:\Program files\TECH-ARROW\contentACCESSWS. Then click on **Next**:

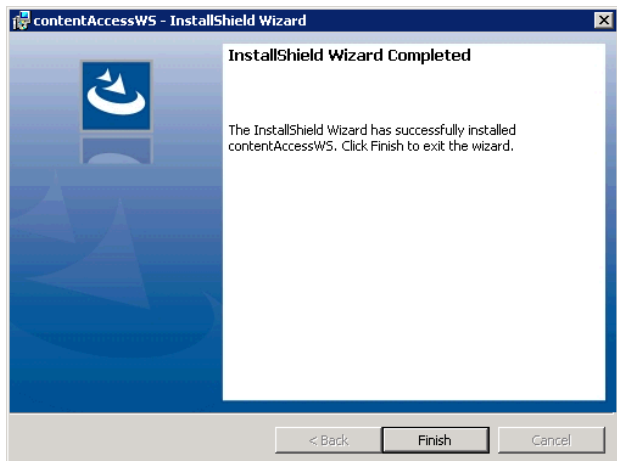
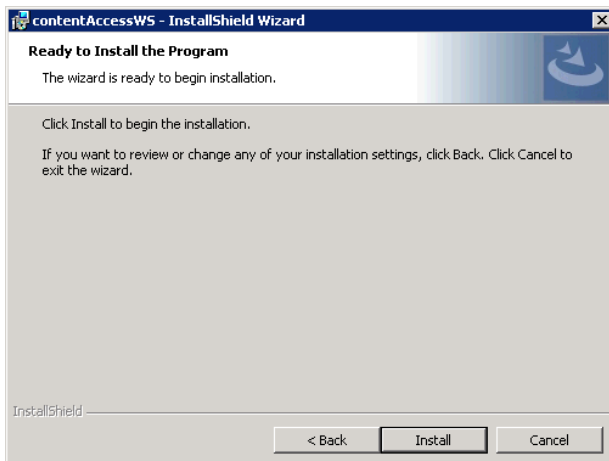


In the next step select the contentACCESS server, and with the **Test Server** button test if the connection with this server was successfully established. With clicking on **Advanced** button you can also set the port where the proxy server should be installed. With checking the **Use secure connection** textbox the user will be enabled to access data only with using a secure connection [HTTPS].

Then click on **Next**.



In the next window, click **Install** to finish the installation process. In the last step click on **Finish**.



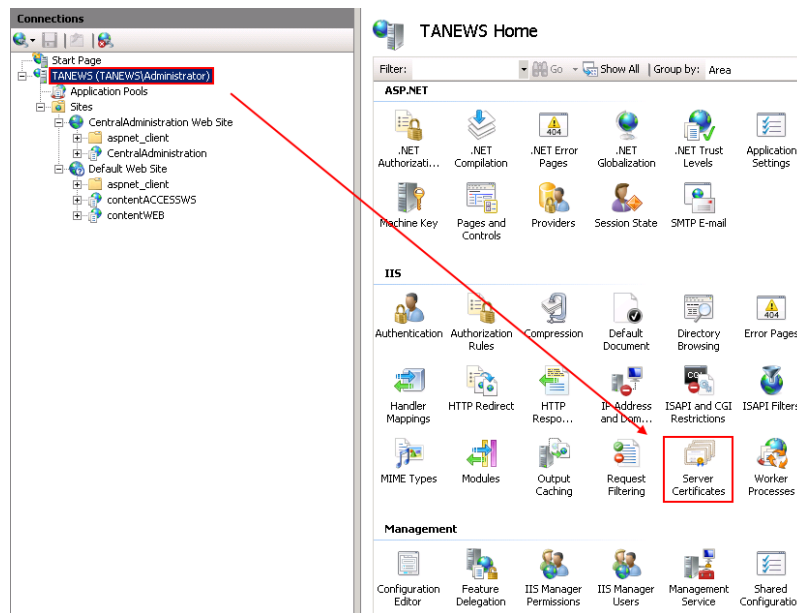
Installing the Proxy web services

How to allow HTTPS secure connection between the proxy server and the contentACCESS in case of need?

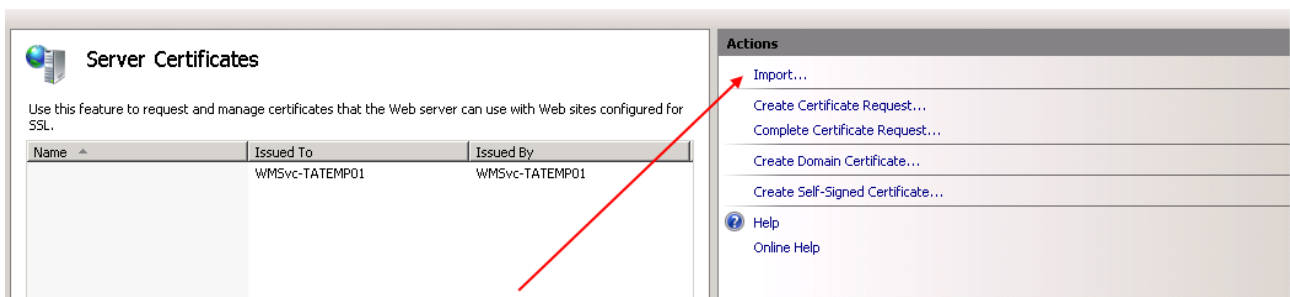
Before you proceed with this configuration, it is necessary to mention that the proxy server must be installed with the option “Use secure connection”; otherwise it is not possible to establish HTTPS connection between the proxy server and contentACCESS.

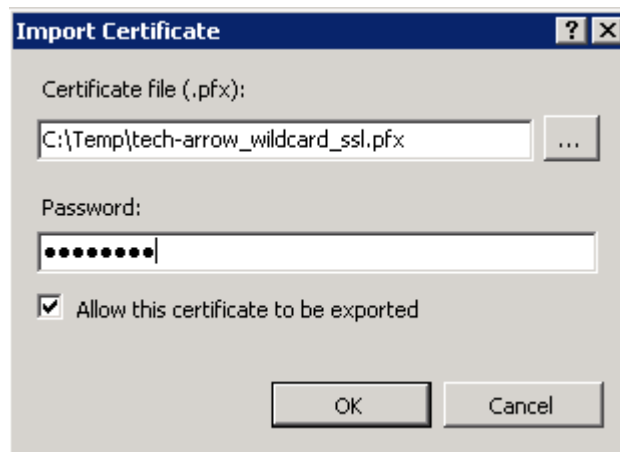
Continue according to the next steps:

1. Open Internet Information Services (IIS) Manager on the computer where the proxy server is installed.
2. Import the company's SSL Certificate
 - a) Click on the server name – "TANEWS(TANEWS\Administrator)" in our case – and under section **IIS** double click on **Server Certificates**:

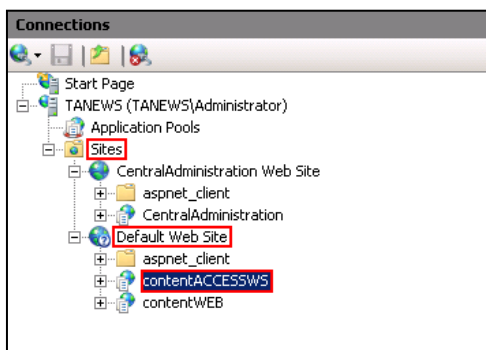


- b) **Import the certificate.** In the right hand corner of the Actions pane click on **Import** and in the **Import certificate** window browse for the company's certificate, open it, then enter the password to it and click on **OK**:

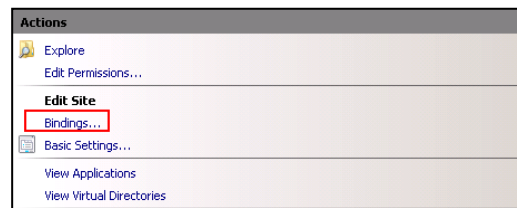




- c) **Bindings configuration.** Now enable the access to the proxy from HTTPS. Search for the node contentACCESSWS in the **Connections** pane. Double click on the **Default Web Site** in the pane, and in the right upper corner of the **Actions** pane click on **Bindings** option.



Screenshot A



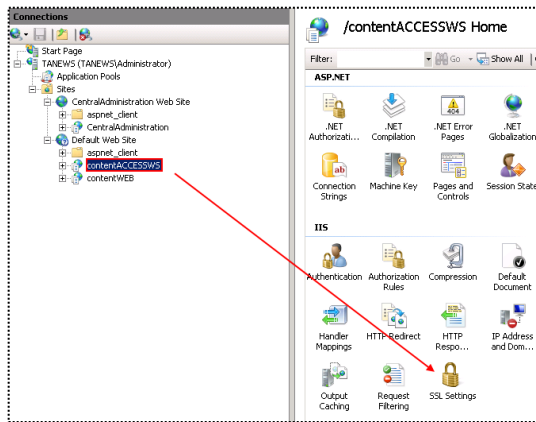
Screenshot B

In the **Site Bindings** window, click on **Add**. In the **Add site binding** window, under **Type** select “https” from the dropdown list, enter the Host name and select the SSL certificate from the dropdown list. Then click on **OK**.

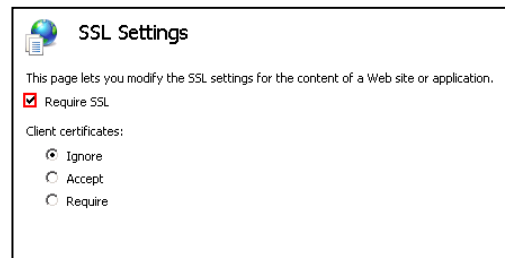


- d) **Cancellation of HTTP-allowance.** If you would not like to allow using HTTP connection any more, unfold the appropriate site in the **Connections** pane and click on the proxy (contentACCESSWS),

then double click on **SSL Settings** option under **IIS** section (Screenshot A). The **SSL Settings** page will open. Here check checkbox **Require SSL** (Screenshot B).

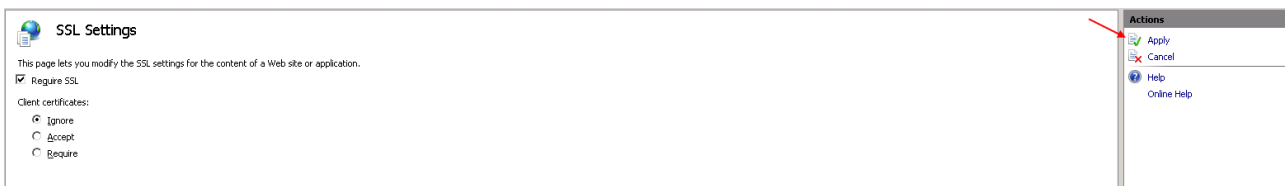


Screenshot A



Screenshot B

e) In the right hand corner click on **Apply** to save these changes.



f) Check if the communication between the proxy and the contentACCESS is well established.

Into the browser enter URL:

<https://tigrincs.tech-arrow.com/contentACCESSWS/MobilityService.svc/ping>.

If the connection was well established, then the ping result will show **OK**.

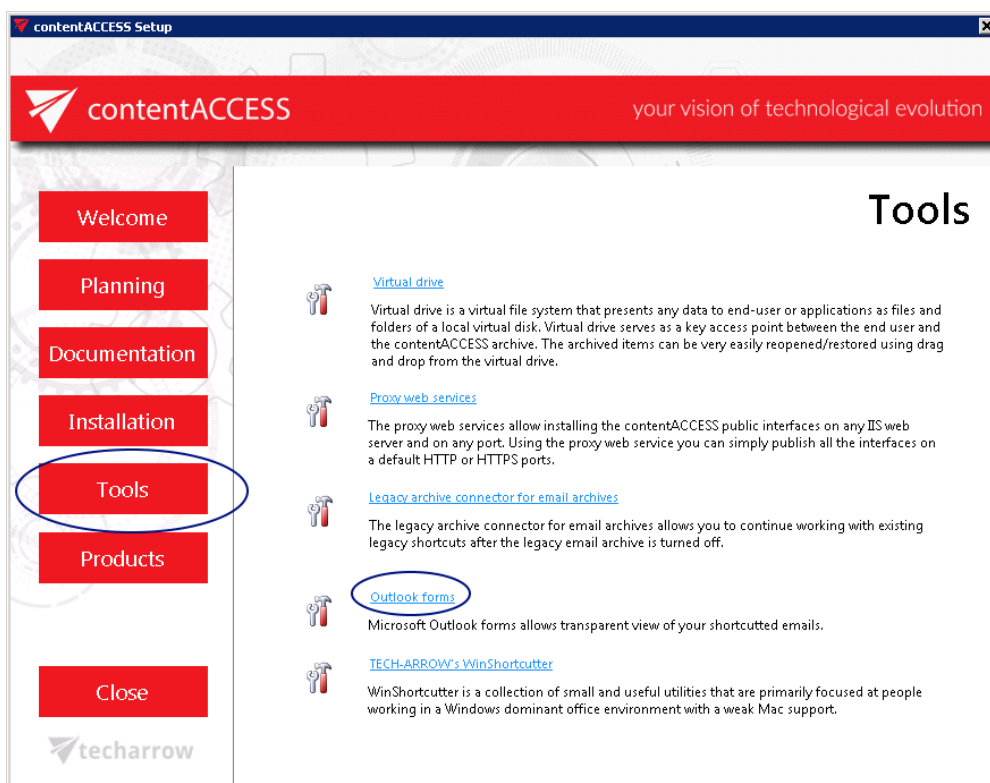
Installing Outlook forms

In Microsoft Outlook, each of the windows where you enter content — for example, a new email message or a new calendar appointment—is called an Outlook form. These default forms are stored in the Standard Forms Library for Outlook. There are additional libraries as well, including Personal Forms and Organizational Forms if you have an Exchange Account. Each folder within the Outlook hierarchy has a default Outlook form associated with it. As you would expect, a mail folder such as your Inbox has the Message form as the default, and the Contacts folder opens the Contact form as its default.



When archiving MS Exchange contents, the contentACCESS MS Outlook forms are used to open an HTML shortcut – which replace the archived email message – transparently with the original email message. If the forms are installed, then the end user will not notice any change between the original email and the archived (shortcutted) one, if the forms are installed (and *Change message class* function was turned on during the shortcut configuration).

In case you would need to install Outlook forms (it will have a great importance by using email shortcuts), navigate to **Tools** button in the contentACCESS installation wizard → click on [Outlook forms](#) option. For more information please refer to the Outlook forms installation manual [here](#).



Important!!! Outlook 2013 users will have access to the Organizational forms library but cannot publish to it using Publish custom forms.

There are 2 possible ways how to solve this:

- a) Use an **earlier version** of MS Outlook to publish the Outlook Forms;
- b) Publish the Forms to your **Personal Forms Library** and then use the **Outlook Options** → **Advanced** → **Developers** group → **Custom Forms...** → **Manage Forms** functionality to copy the form from **Personal Forms** to **Organizational Forms**.



Legacy email archive connectors

Legacy retrieve services bring for the user the advantages of hybrid archiving (connection to the legacy archive and the new archive through contentACCESS).

With installing the given retrieve service and configuring it in the contentACCESS Central Administration and on the legacy server, you will be able to **retrieve the old email archive shortcuts** and to **check your legacy archive using contentWEB**. It is recommended to install the retrieve service on the legacy archive server.

To be able to work with the existing legacy shortcuts the legacy email archive should be turned off. contentACCESS has two legacy archive connectors:

- Legacy archive connector for **Metalogix Archive Manager Exchange Edition (MAM EE)**
- Legacy archive connector for **Email Lifecycle Manager (ELM)**

In the following subchapters we will learn how to install the MAM EE and ELM retrieve services and how to do necessary configurations in contentACCESS.

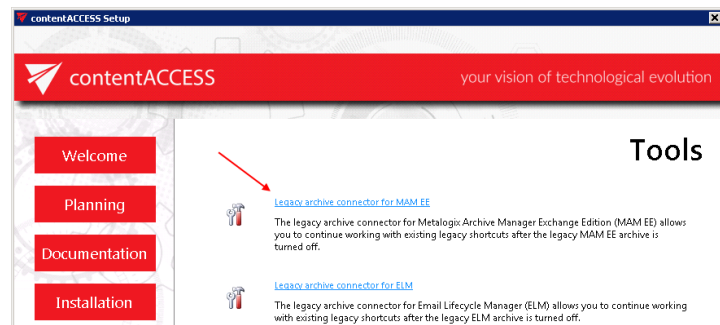
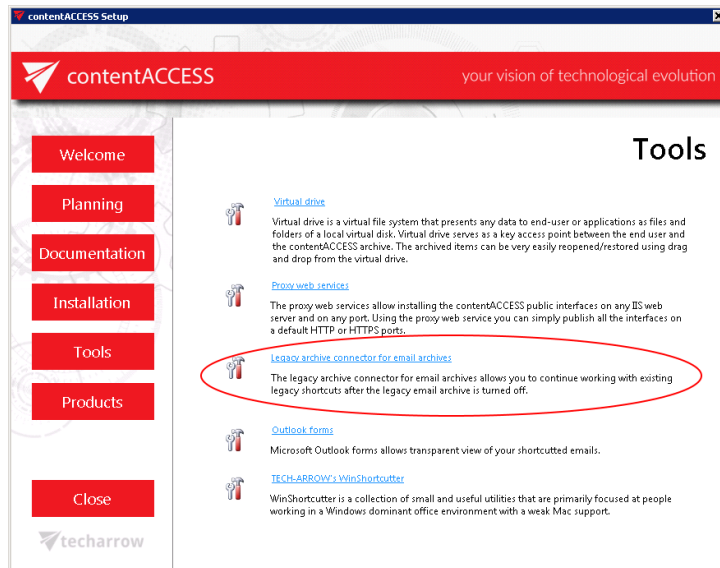
Legacy archive connector for Metalogix Archive Manager Exchange Edition (MAM EE)

Legacy MAM retrieve service is a replacement of the original Metalogix Archive Manager Exchange Edition (MAM EE) retrieve service. This service is used to access archived files over the legacy shortcuts, if you have uninstalled Metalogix Archive Manager (and Archive Web) from your computer, and you need to check the archive contents.

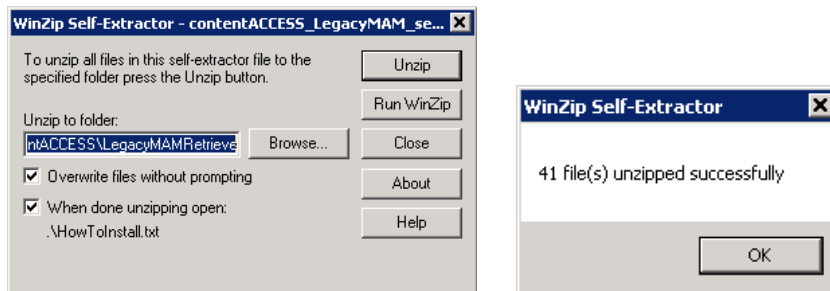
Important! Do not uninstall HSM from the server. It will be needed to access the MAM shortcuts and to retrieve the archived items.

Installing Legacy MAM retrieve service and its configuration on the MAM server

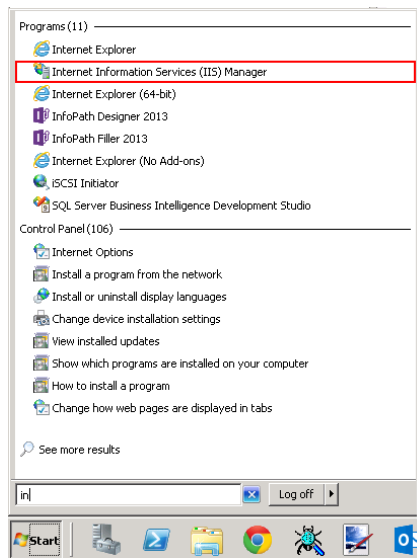
1. In the **Tools** of the contentACCESS setup package click on **Legacy archive connector for email archives/Legacy archive connector for MAM EE** and start to run the setup package.



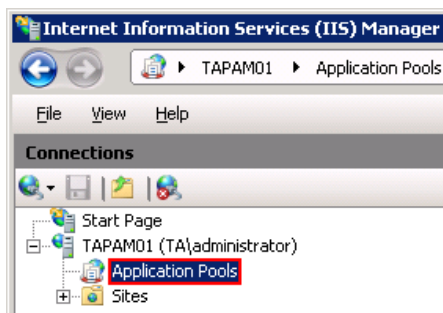
By default it unzips to c:\Program Files\TECH-ARROW\contentACCESS\LegacyMAMRetrieve folder. Click “Unzip”. After the files have been successfully unzipped click “OK”.



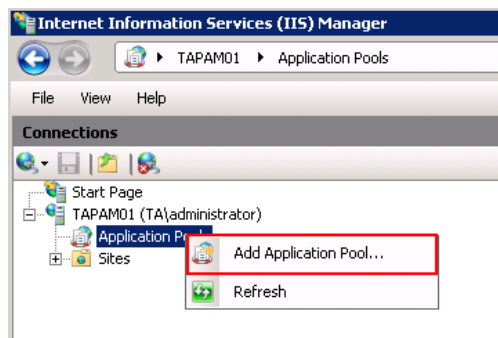
2. A short **HowToInstall** manual will automatically open to help you with installing the server. Follow the next steps of this short step-by-step manual:
3. Open **Internet Information Services (IIS)** manager from the **Start** menu:



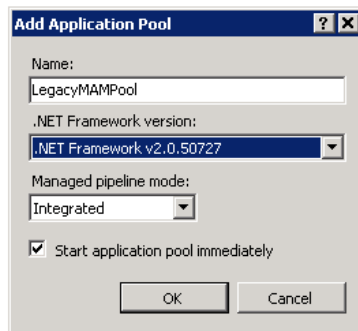
4. Navigate to the following node in the tree on the left side: [SERVER_NAME]\Application Pools:



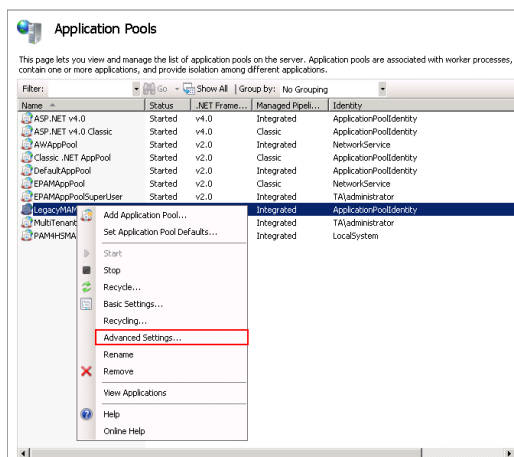
5. Right click on the node “Application Pools” and select “Add Application Pool”:



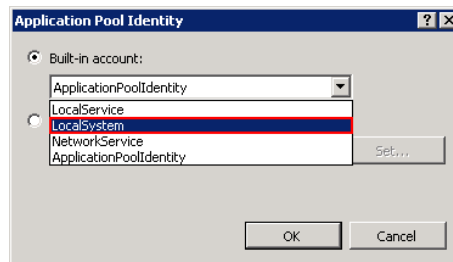
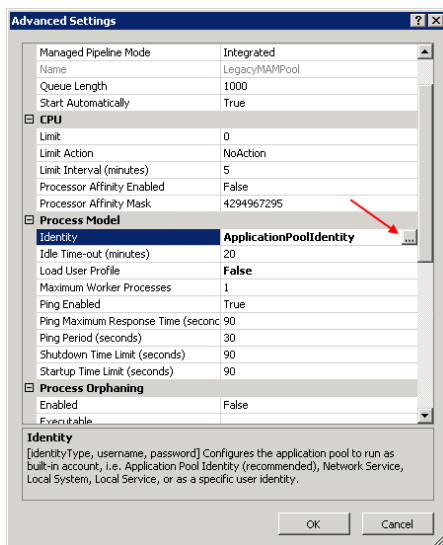
6. The “Add Application Pool” window will open. Enter "LegacyMAMPool" as name and select the .NET Framework version from the .NET Framework version dropdown list, then click OK.



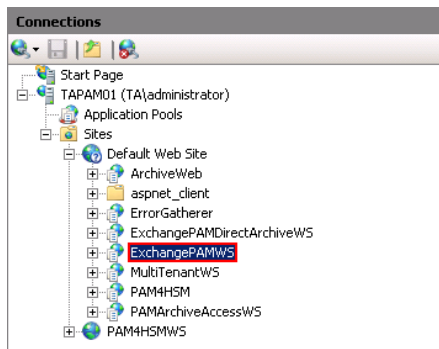
7. Right click on the newly created "LegacyMAMPool" in the grid, and select "Advanced Settings" from its context menu.



8. Change "Identity" to "Local system" built in account in the "Application Pool identity" window, then click "OK".

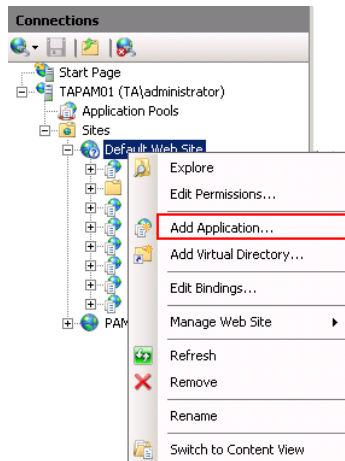


9. Navigate to the following node in the tree on the left side: [SERVER_NAME]\Sites\Default Web Site\ExchangePAMWS:



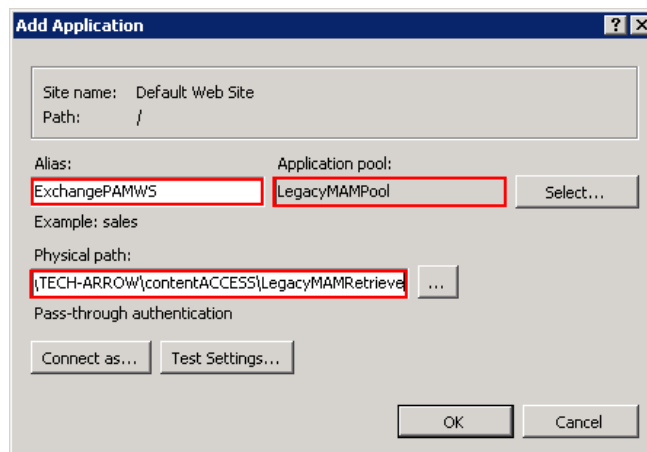
If the ExchangePAMWS is NOT found, then:

a) Right click on the “Default Web Site” and click on the "Add Application".



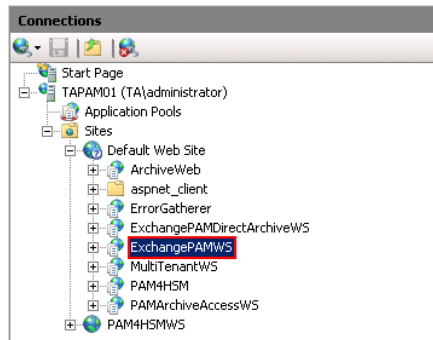
b) Enter “ExchangePAMWS” into alias and “C:\Program files\TECH-ARROW\contentACCESS\LegacyMAMRetrieve” as **Physical path**. Select the “LegacyMAMPool” by clicking the “Select” button.

c) Click “OK”.

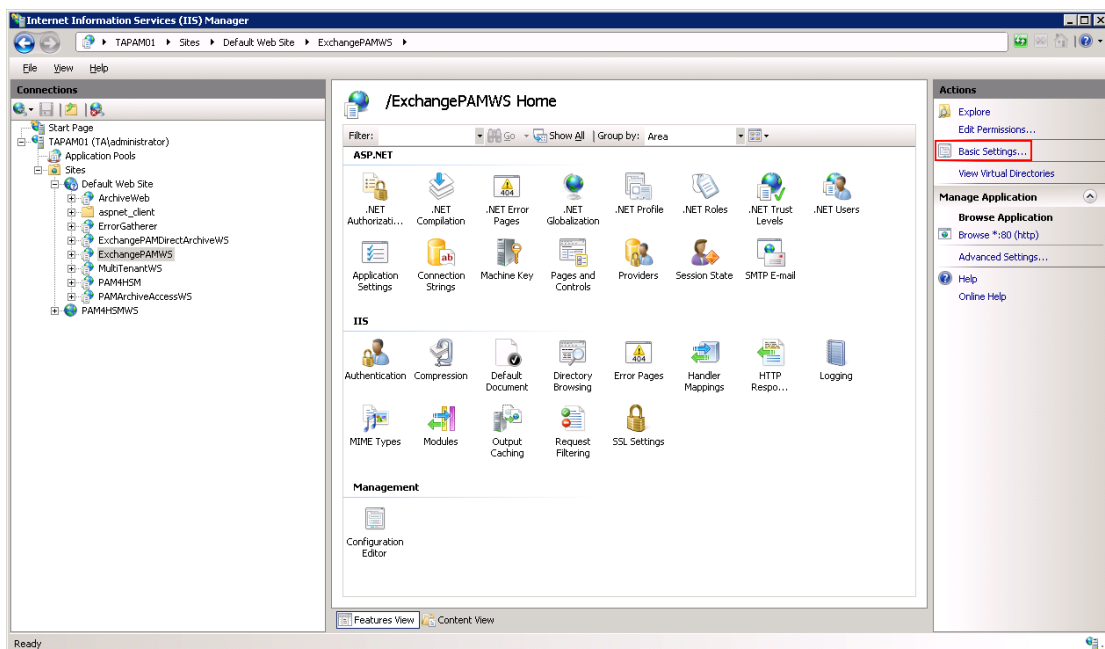


If the ExchangePAMWS is found, then:

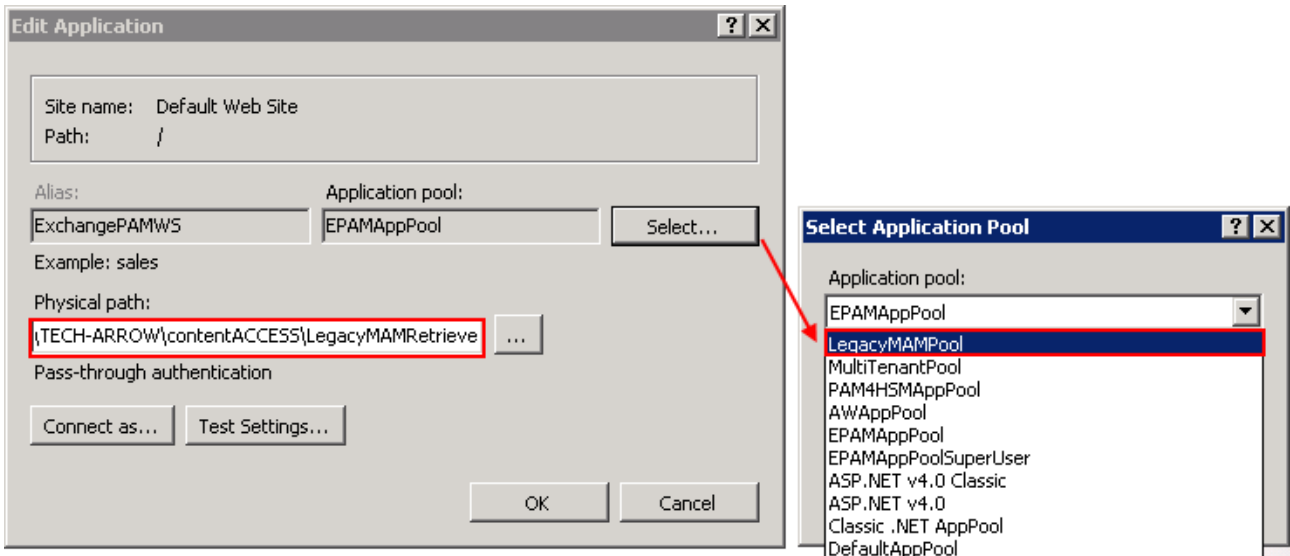
a) Select the "ExchangePAMWS" node by clicking on it.



b) Click "Basic Settings..." in the Actions pane (right side of the IIS Manager).



c) In the "Edit Application" dialog, select the "LegacyMAMPool" by clicking the "Select" button and enter "C:\Program Files\TECH-ARROW\contentACCESS\LegacyMAMRetrieve" into the Physical path textbox.



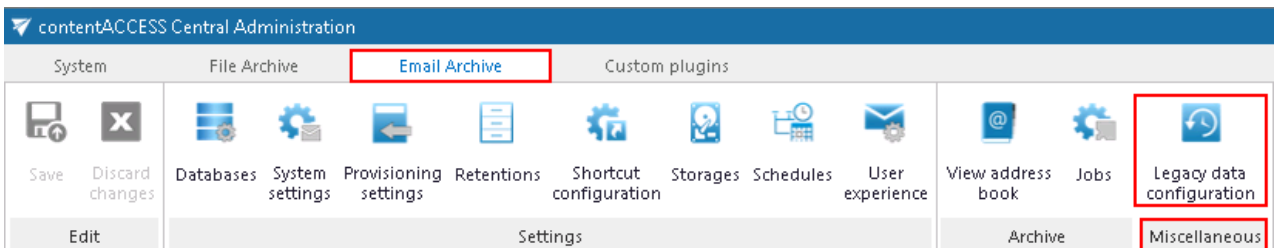
10. Continue with setting up the MAM server in contentACCESS:

Configuration of the MAM server in contentACCESS Central Administration:

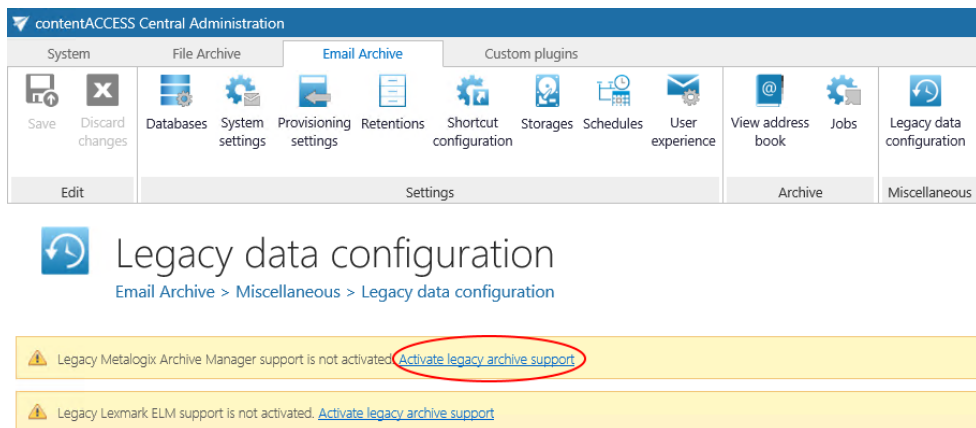
- a) Open contentACCESS Central Administration from your browser:

http://[contentACCESSServerName]:3333/CentralAdministration

- b) Navigate to **Email Archive** → **Miscellaneous** → **Legacy data configuration** on the ribbon:

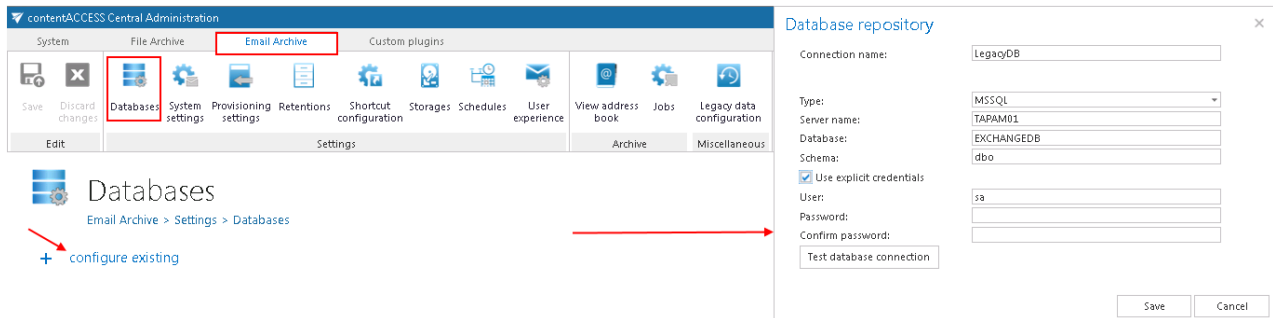


- c) Activate legacy archive support with clicking on the “Activate legacy archive support” option in the warning box.

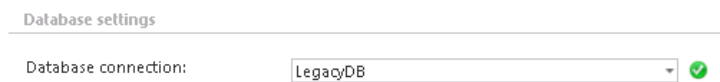




- d) **Database settings:** go to **Email Archive** → **Settings** → **Databases** button on the ribbon, and configure the connection with the old Metalogix database on the MAM server. In this use case the MAM database is on **TAPAM01**.



- e) Navigate back to the **Legacy data configuration** page on the ribbon, and select the created database connection from the database dropdown list.

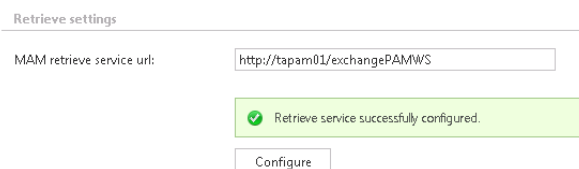


Now you can configure the URL's for the MAM retrieve server.

- f) Under **Retrieve settings**, enter the **MAM retrieve service URL** using the server name (in our case "TAPAM01"), where the Legacy MAM retrieve service was installed.

Use the following sample: [http://\[MAMServerName\]/exchangePAMWS](http://[MAMServerName]/exchangePAMWS)

Click "**Configure**". In this step, the contentACCESS will configure the retrieve proxy with the correct parameters.



- g) **HSM server settings:** Enter the HSM server name into the text field using the following sample:

[http://\[HSMServerName\]/PAM4HSM/PAM4HSMWS.asmx](http://[HSMServerName]/PAM4HSM/PAM4HSMWS.asmx)



HSM server settings

HSM Server name:

✔ Connection successful!

Test

Once the retrieve service installation and its configuration is ready, it will be possible to retrieve the old MAM shortcuts from Outlook/OWA and browse the legacy archive through contentWEB. (contentWEB is the end user interface for the contentACCESS archive. For more information check section [contentWEB](#)).



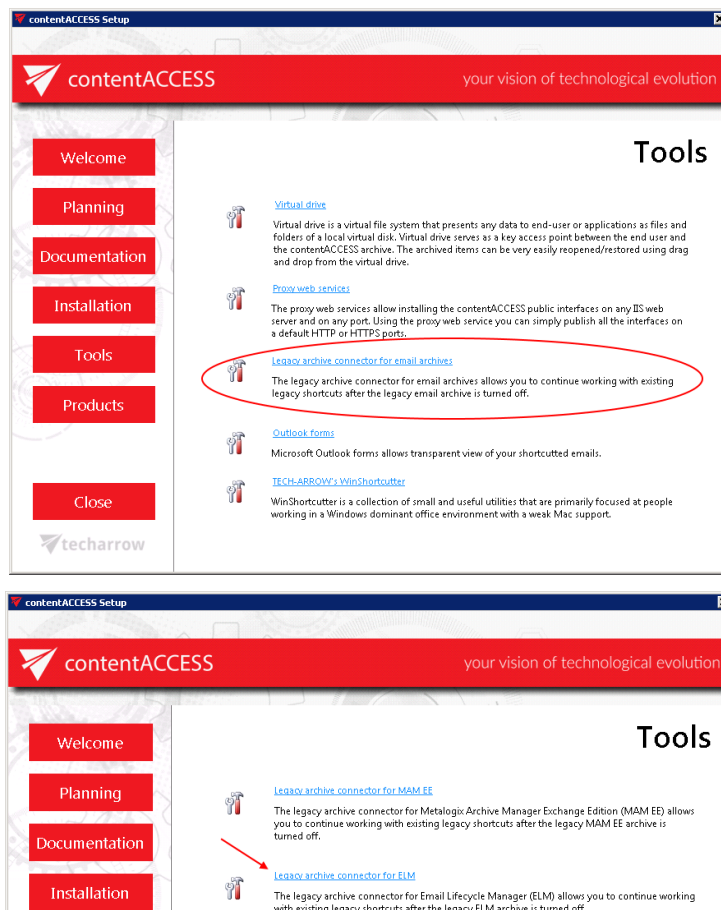
Legacy archive connector for Email Lifecycle Manager (ELM)

This service is used to access archived files from the legacy ELM shortcuts, if you have uninstalled Email Lifecycle Manager from your computer, and you need to check the archive contents.

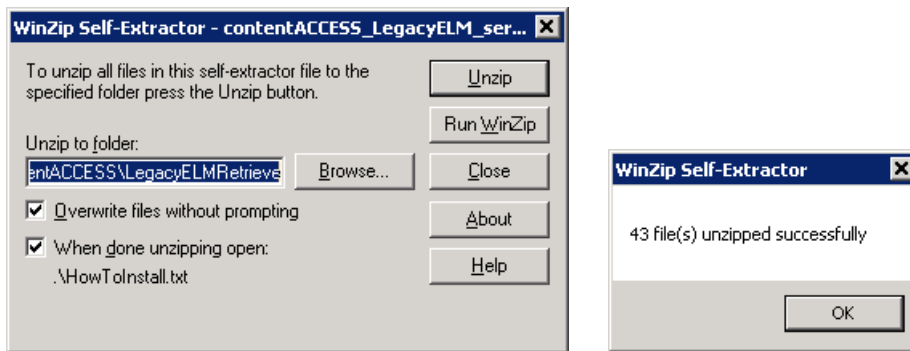
Installing Legacy ELM retrieve service on the ELM server and its configuration

In this use case the ELM is installed on server *taelm01*. The retrieve service will be installed on the same server as it is recommended by us.

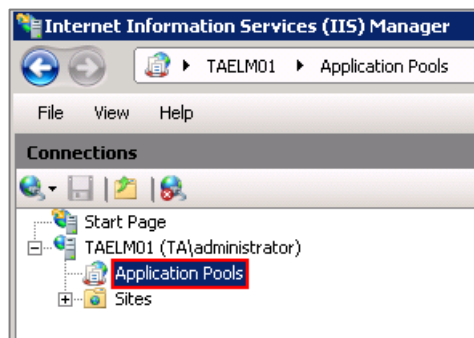
1. In the **Tools** of the contentACCESS setup package click on **Legacy archive connector for email archives/Legacy archive connector for ELM** and start to run the setup package.



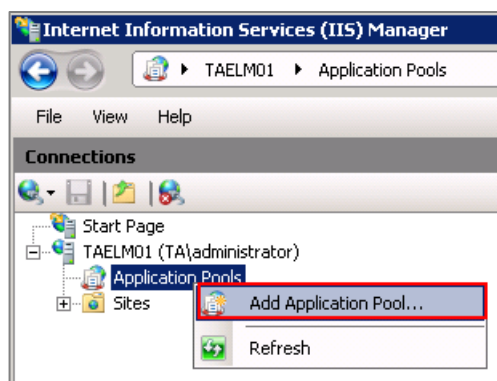
By default it unzips to `c:\Program Files\TECH-ARROW\contentACCESS\LegacyELMRetrieve` folder. Click "Unzip". After the files have been successfully unzipped click "OK".



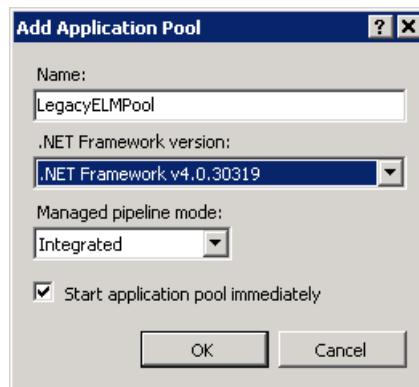
2. A short **HowToInstall** manual will automatically open to help you with installing the server. Follow the next steps of this short step-by-step manual:
3. Open **Internet Information Services (IIS) manager** from the **Start** menu:
4. Navigate to the following node in the tree on the left side: [SERVER_NAME]\Application Pools:



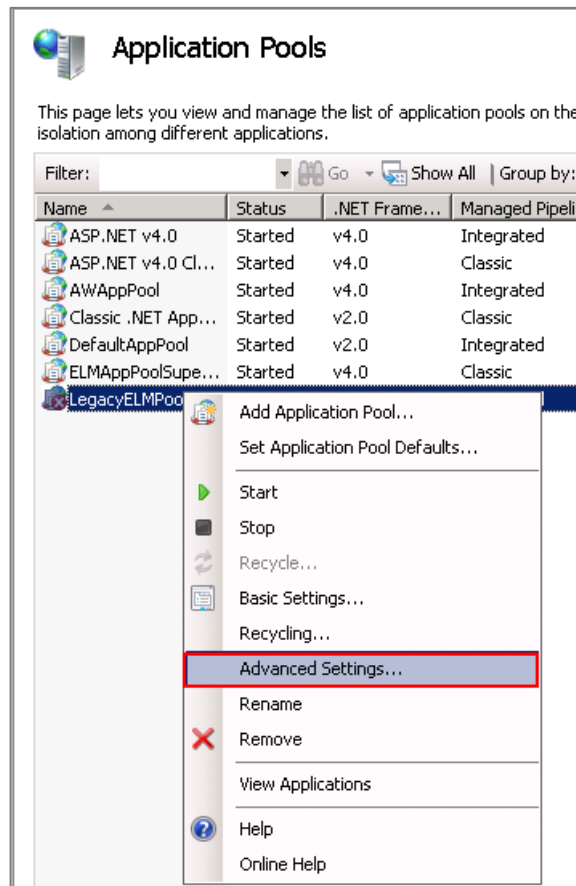
5. Right click on the node “**Application Pools**” and select “**Add Application Pool**”:



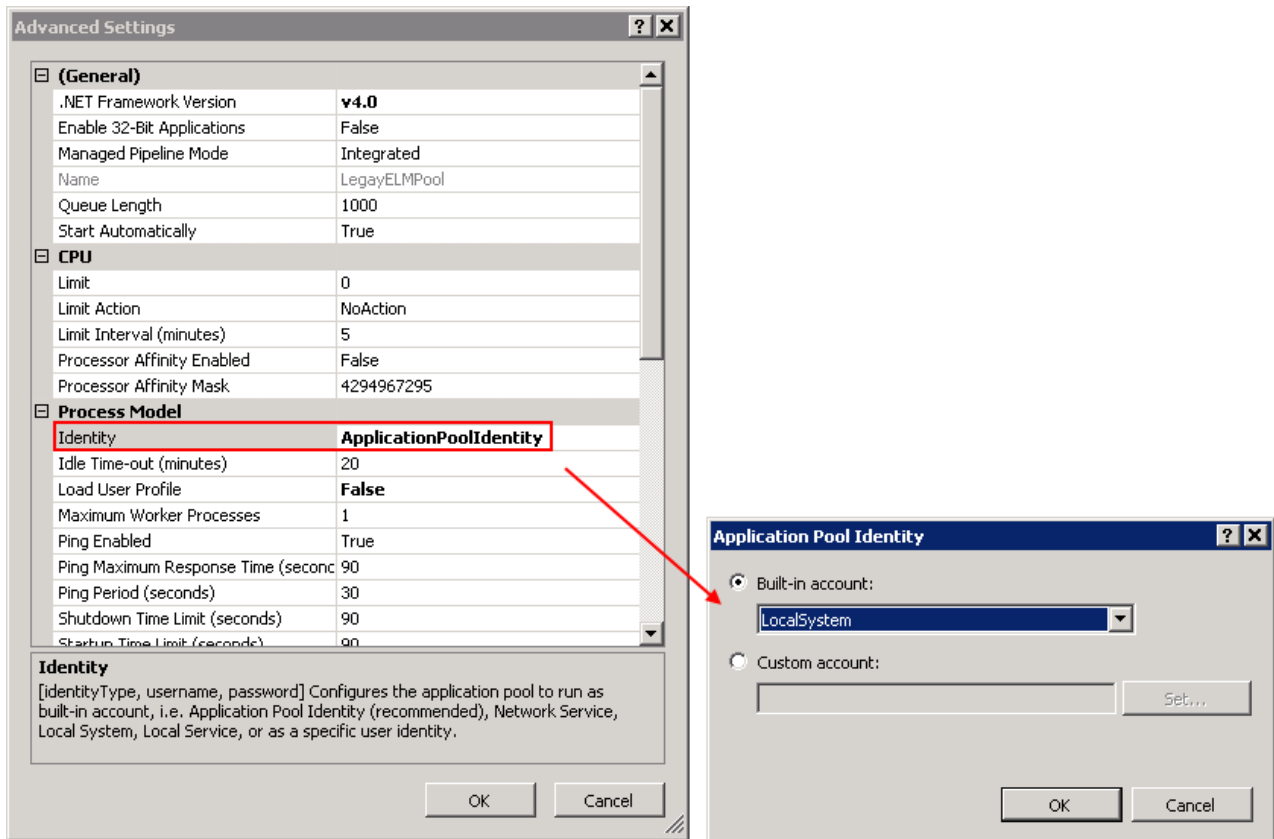
6. The “**Add Application Pool**” window will open. Enter "LegacyELMPool" as name and select the .NET Framework version from the **.NET Framework version** dropdown list, then click **OK**.



- Right click on the newly created "LegacyELMPool" in the grid, and select "Advanced Settings" from its context menu.



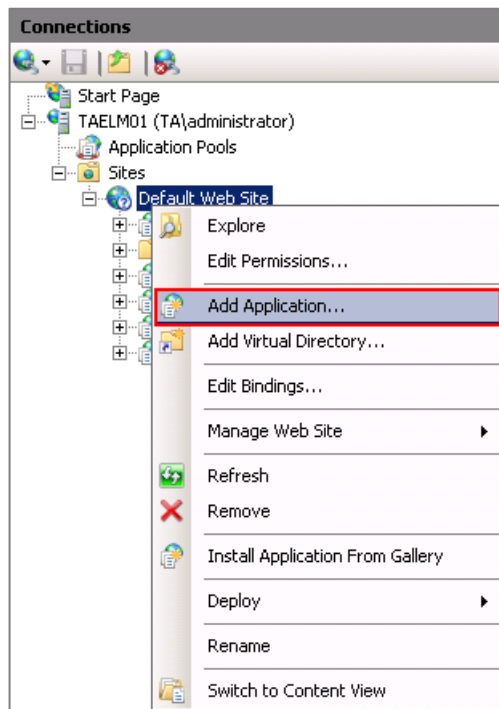
- Change "Identity" to "Local system" built in account in the "Application Pool identity" window, then click "OK".



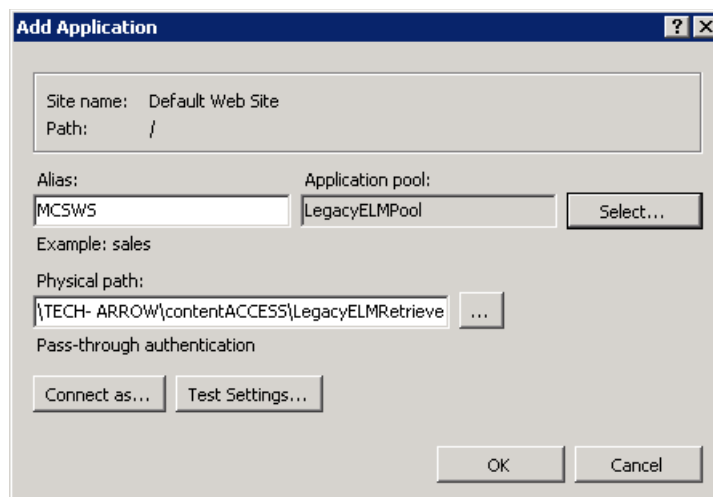
9. Navigate to the following node in the tree on the left side: [SERVER_NAME]\Sites\Default Web Site\MCSWS:

If the MCSWS is **NOT** found, then:

- a) Right click on the "Default Web Site" and click on the "Add Application".

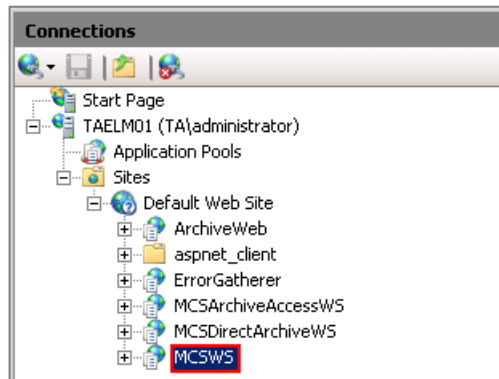


- b) Enter “MCSWS” into alias and “C:\Program files\TECH-ARROW\contentACCESS\LegacyELMRetrieve” as **Physical path**. Select the “**LegacyELMPool**” by clicking the “**Select**” button.
- c) Click “**OK**”.

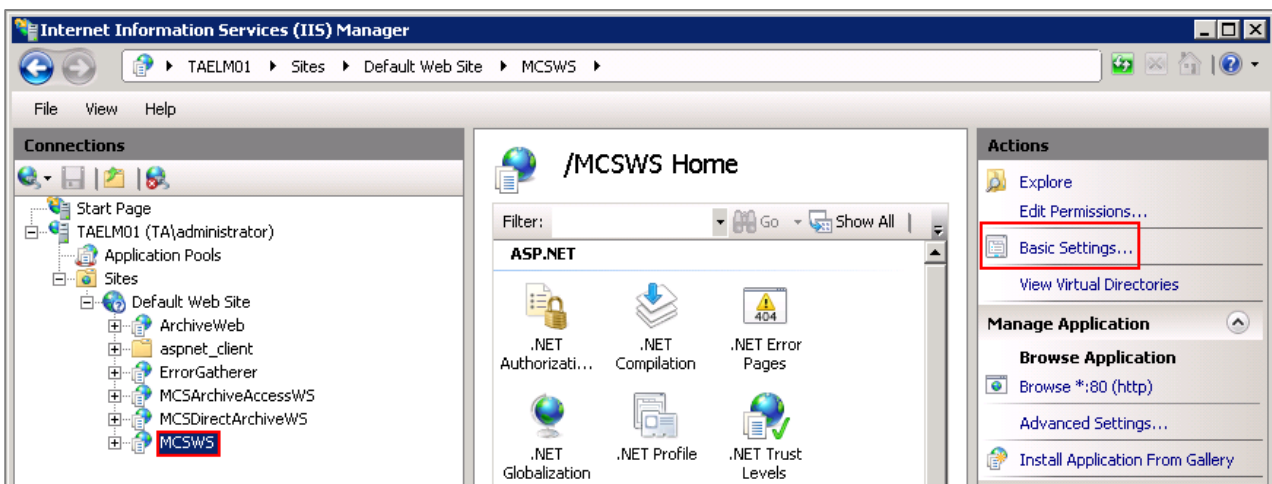


If the MCSWS is found, then:

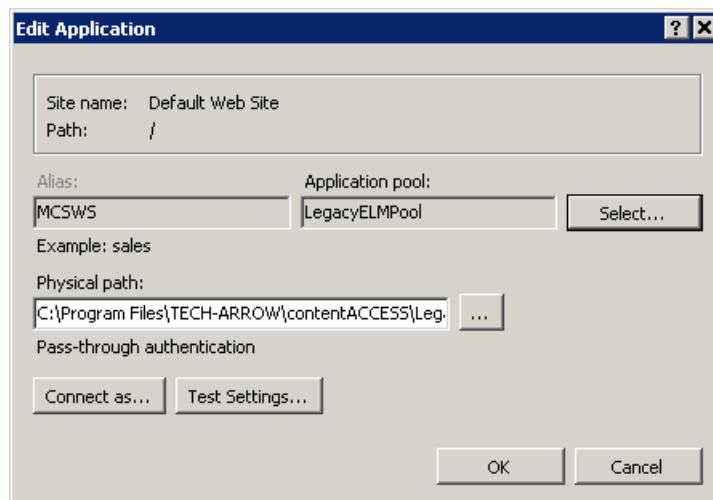
- a) Select the “**MCSWS**” node by clicking on it.



b) Click "Basic Settings..." in the Actions pane (right side of the IIS Manager).



c) In the "Edit Application" dialog, select the "LegacyELMPool" by clicking the "Select" button and enter "C:\Program Files\TECH-ARROW\contentACCESS\LegacyELMRetrieve" into the Physical path textbox.



10. Continue with setting up the ELM server in contentACCESS:

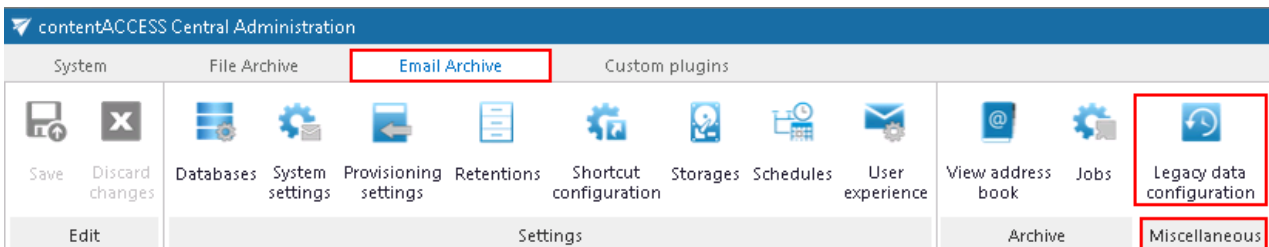


Configuration of the ELM server in contentACCESS Central Administration:

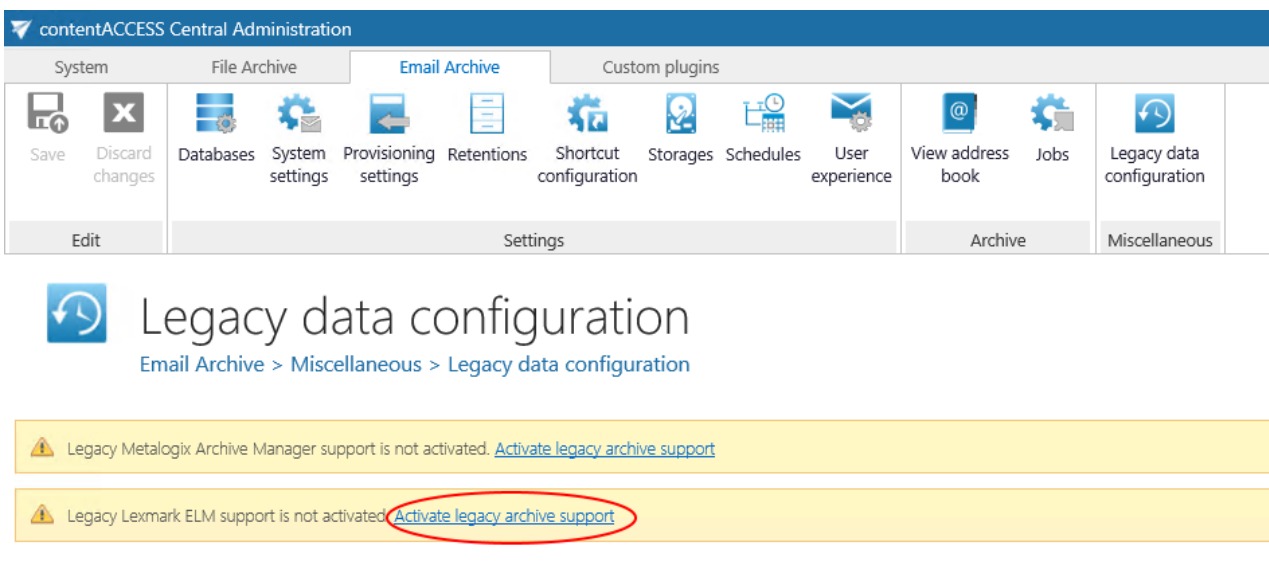
- a. Open contentACCESS Central Administration from your browser:

[ServerName]:3333/CentralAdministration

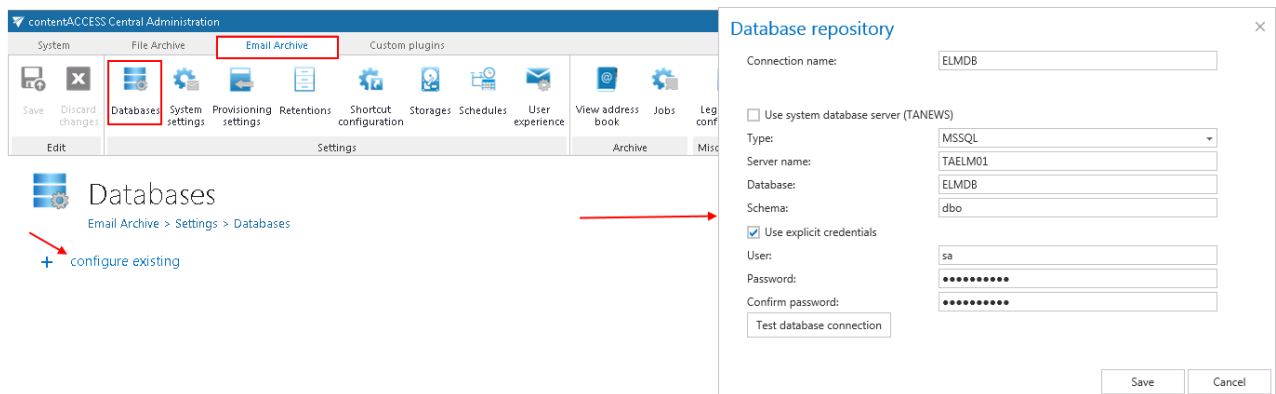
- b. Navigate to **Email Archive** → **Miscellaneous** → **Legacy data configuration** on the ribbon:



- c. Activate legacy ELM archive support with clicking on the “Activate legacy archive support” option in the warnings box.



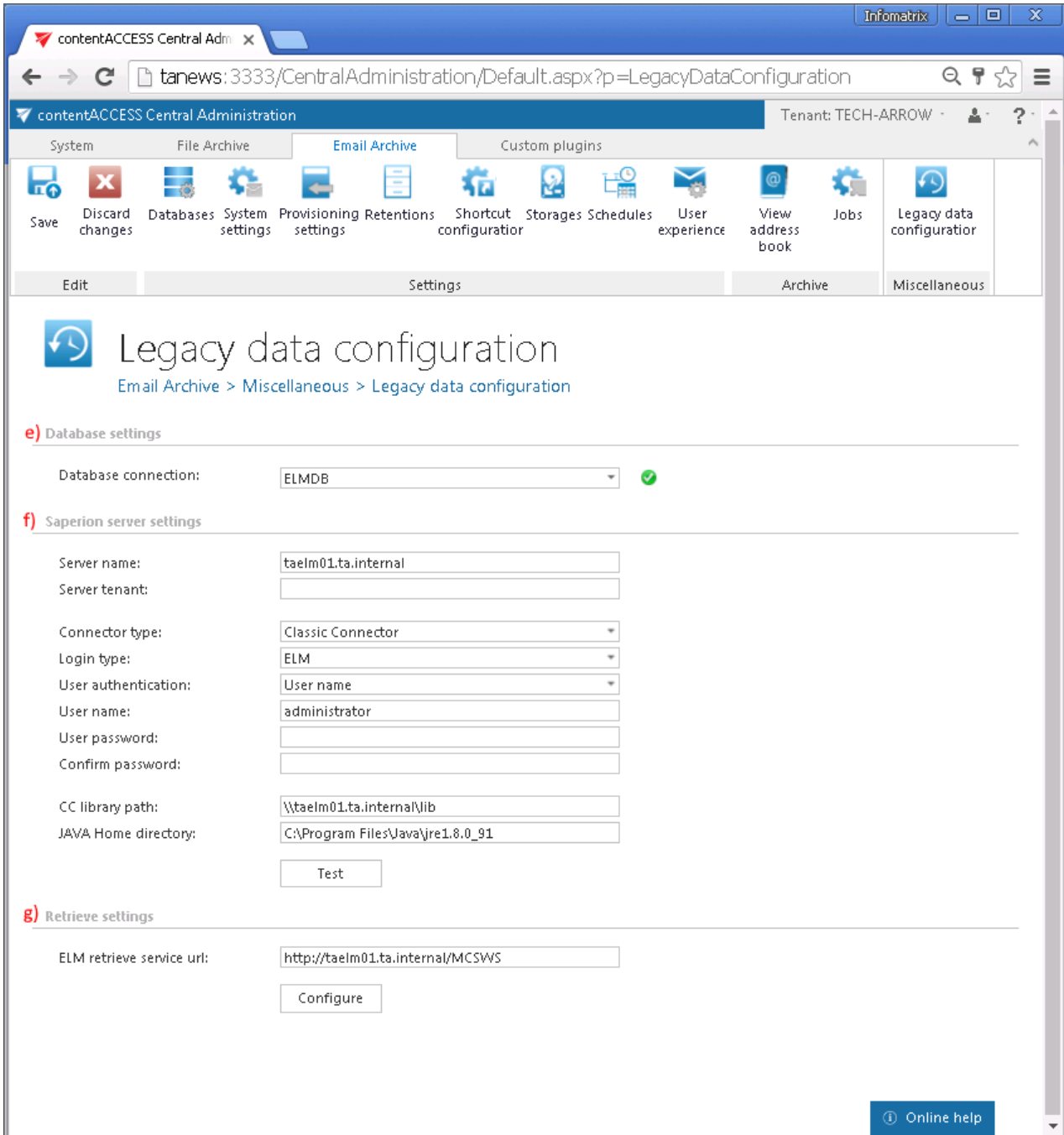
- d. **Database settings:** go to **Email Archive** → **Settings** → **Databases** button on the ribbon, and configure the connection with the old ELM database on the ELM server (in our case with *taelm01*).



- e. Go back to the **Legacy data configuration** page on the ribbon, and set the connection with the ELM database (ELMDB from step *d*) above) in the **Database settings** section.
- f. In section **Saperion server settings** set the connection with the Saperion (ELM) server. Set the values based on your configurations on the Saperion (ELM) server. The connector has some prerequisites:
 - JRE x64 on the contentACCESS server (Check if folder exists: "c:\Program Files\Java\jre X.X") – to be configured in section **JAVA Home directory**
 - Need the ELM references, but it could be also referenced directly from the ELM machine. This is the path on which the Classic Connector jar files can be reached, e.g. c:\Program Files\SAPERION\Application\scr\scr-classicconnector\lib – to be configured in section **CC library path**.

Also run a test connection to verify the connection with the Saperion server.

- g. In section **Retrieve settings** enter the ELM retrieve service URL using the following sample: [http://\[ELMServerName/MCSWS\]/](http://[ELMServerName/MCSWS]/) and click on **Configure**.



The screenshot shows the contentACCESS Central Administration web interface. The browser address bar displays the URL: `tanews:3333/CentralAdministration/Default.aspx?p=LegacyDataConfiguration`. The page title is "Legacy data configuration" and the breadcrumb trail is "Email Archive > Miscellaneous > Legacy data configuration".

The interface includes a navigation menu with the following items: Save, Discard changes, Databases, System settings, Provisioning settings, Retentions, Shortcut configurator, Storages, Schedules, User experience, View address book, Jobs, and Legacy data configuration. Below the menu are tabs for Edit, Settings, Archive, and Miscellaneous.

The main content area is titled "Legacy data configuration" and contains three sections:

- e) Database settings:** A dropdown menu for "Database connection" is set to "ELMDB" with a green checkmark.
- f) Saperion server settings:** A form with the following fields:
 - Server name: `taelm01.ta.internal`
 - Server tenant: (empty)
 - Connector type: Classic Connector
 - Login type: ELM
 - User authentication: User name
 - User name: administrator
 - User password: (empty)
 - Confirm password: (empty)
 - CC library path: `\\taelm01.ta.internal\lib`
 - JAVA Home directory: `C:\Program Files\Java\jre1.8.0_91`
 A "Test" button is located below the JAVA Home directory field.
- g) Retrieve settings:** A form with the following field:
 - ELM retrieve service url: `http://taelm01.ta.internal/MCSWS`
 A "Configure" button is located below the URL field.

An "Online help" button is located in the bottom right corner of the page.

Once the installation of the service and its configuration is ready, it will be possible to

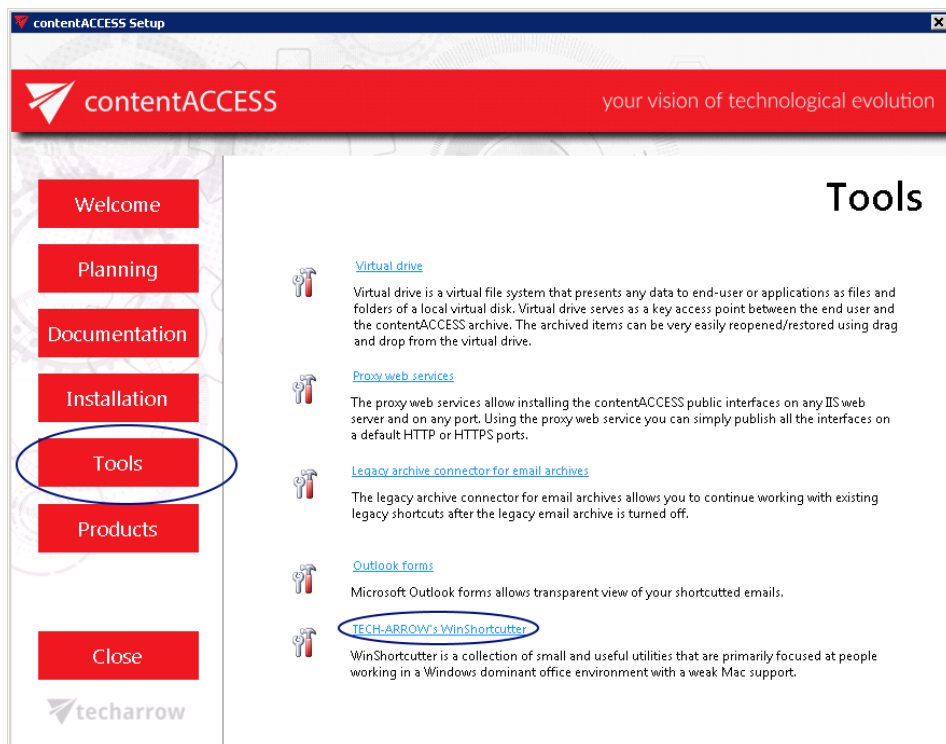
- retrieve the old ELM shortcuts in Outlook/OWA (necessary MS Outlook/OWA integration need to be also installed, see more [here](#)) and
- browse the legacy archive using contentWEB (contentWEB is the end user interface for the contentACCESS archive. For more information check section [contentWEB](#)).



Installing TECH-ARROW's WinShortcutter

What is TECH-ARROW's WinShortcutter? It is a collection of small and useful utilities that are primarily focused on people working in a Windows dominant office environment with a weak MAC support. With this application you can open Windows shortcut files (.lnk files) on Apple OS X operating system and also shortcut files created by contentACCESS File Archive.

To install it, open the **Tools** in the contentACCESS setup window, and click on option WinShortcutter.



For further information **about the application** please refer to the TECH-ARROW's WinShortcutter Manual [here](#).



contentACCESS Central Administration

contentACCESS is a modular product, with built-in or custom plugins. The built-in plugins are available for on premise Exchange server, Office365, SharePoint and File servers. With these plugins contentACCESS can combine several systems into one archive storage in the cloud or on premise. There are many possibilities to visualize and work with the archived data: use officeGATE (Outlook add-in) to see the data directly in Outlook, use a web browser to see the data using contentWEB, use accessGATE Mobile application to see the data on your smartphones or use accessGATE to interconnect your data with SharePoint.

contentACCESS is software which supports multiple-tenancy. Multi-tenancy is an architecture in which a single instance of a software application serves multiple customers. Each customer is called a tenant. Every tenant of contentACCESS has its own data management processes. This means, that every tenant uses its own plugin instances (jobs), also have its own databases and storages. All these data can be isolated from the data of other tenants. Even if these tenants are isolated from each other, in case of need one or more users with system administrator permission can have the right to manage the processes to more tenants.

Multiple-tenancy might be very useful e.g. for those companies who have more affiliates and would like to build a deeper administration structure for the company as a whole. Each affiliate could become a tenant and could have its own administration. In this case other affiliates would not have a right to manage the processes of another affiliate and everybody could build his own processes in a way he wants. Dividing of tasks and responsibilities could be more transparent and the work would be more effective using this method.

contentACCESS Central Administration is a user interface for administrators, over which they can configure contentACCESS, create new automatically running jobs to process company data, configure these jobs, adjust framework feature settings, set up schedulers, databases, storages, create clusters etc.. contentACCESS Central Administration is accessible from the Start menu of the server where it is installed, or by typing the correct URL into the browser:

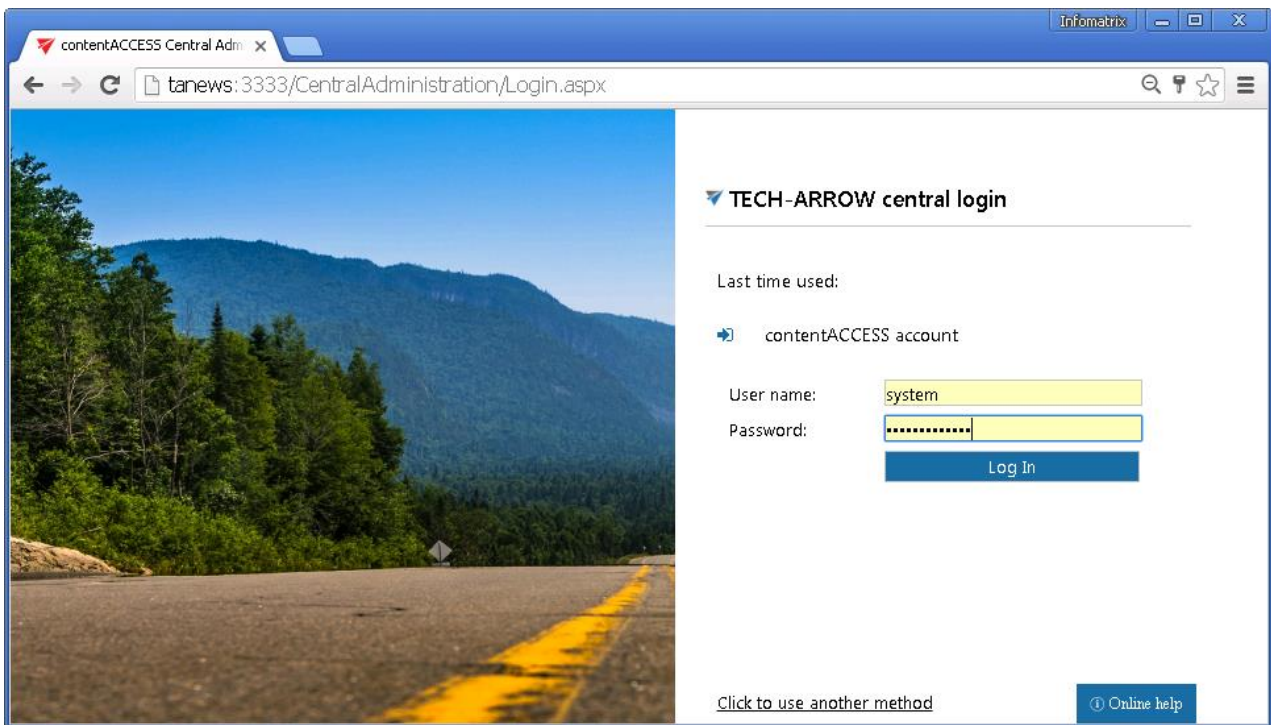
`http://[ServerName]:[PortNumberOfCentralAdministration]/CentralAdministration`

Before you proceed to read the Central Administration, we advise for you to read section [Terms of use](#) to understand the structure of the contentACCESS Central Administration user interface, and to navigate easier on the ribbon.

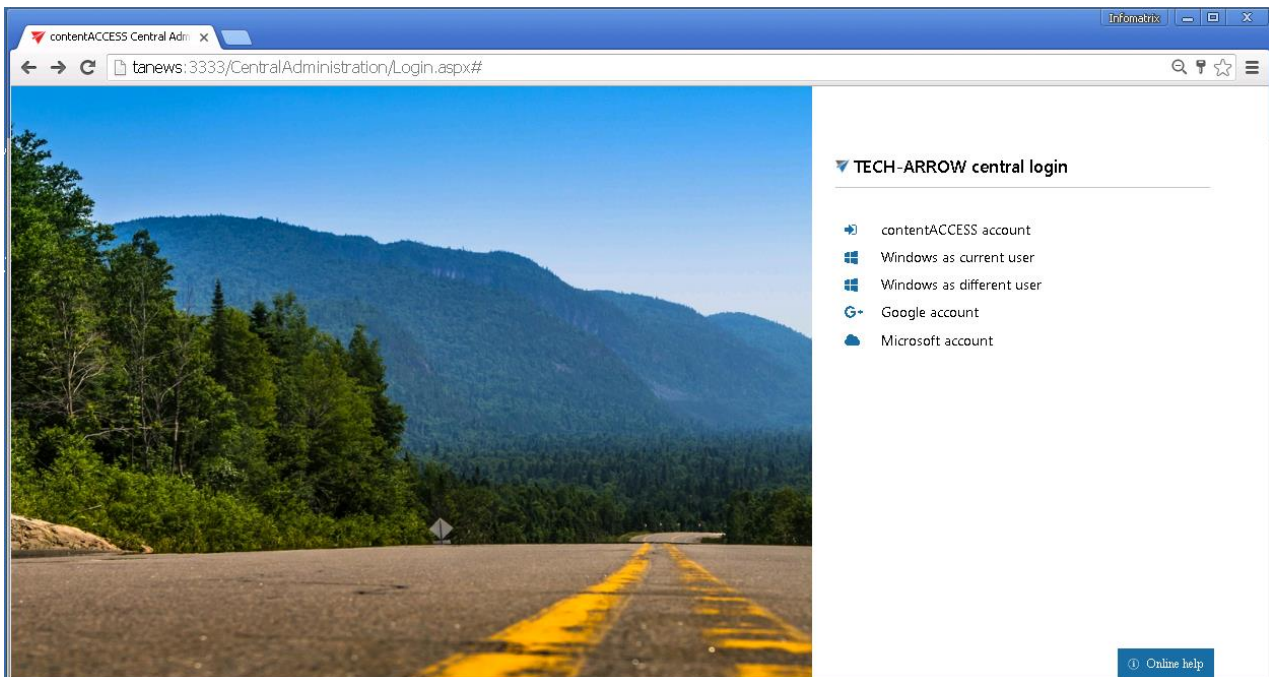
Central administration login

To log into contentACCESS Central Administration, open it from the **Start** menu. If you do not have Central Administration installed on your PC, open a browser and type the appropriate URL into the browser's search field.

The TECH-ARROW central login page opens:



You can log in to the Central Administration of contentACCESS if you have system administrator or tenant administrator permissions, with an internal (Forms) or external (Windows, Microsoft, Google) account.



The main advantage of an external account is that it will not be required from the user to type in his credentials into the login window by each log in. He will be authenticated by the third party provider, and will be redirected automatically on the central administration page of contentACCESS. In contentACCESS, Windows and Forms authentication providers are enabled by default. When you log in to contentACCESS Central Administration for the very first time use the internal system account:

User name: **system**

Password: **c0ntent@ccess**

To be able to log in with a Windows account, a User login with Windows authentication type must be created for the user.

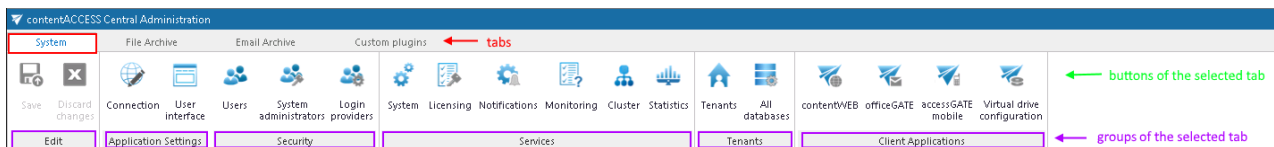
For more information how to enable further external login providers, please refer to section [Login providers](#).

Note: Central administration remembers the last accessed page of the user and will automatically navigate back when logged on again. The same rule applies to tenant settings. Central Administration will log in under the tenant which was last selected.



contentACCESS Central Administration user interface

After you have successfully logged in, the Central administration of contentACCESS page will load in. The ribbon is divided into 4 main tabs: **System**, **File archive**, **Email Archive** and **Custom plugins**. Each tab is divided into several groups, which also contain several buttons.



General system settings (application settings, security settings, system database settings, external accessibility, license activation, clusters, statistics, setting up new databases etc.) are accessible under **System** tab (marked with red frame on the screenshot above). Configurations of File Archive, Email Archive and Custom plugins can be adjusted with navigating to **File Archive**, **Email Archive** and **Custom plugins** tabs on the ribbon.

In the right upper menu of the Central Administration user interface you can **select your tenant**. Here you can also check the signed in user's user name and login name that he used to log in to contentACCESS, the detailed information about the signed in user (**About me**), or you can **change the already logged in user**. Also here you can **sign out** from the Central Administration (red frame on the screenshot below).

Click on the "?" question mark to roll down the menu. Under **About** menu point (green frame) you will find the information about the contentACCESS **version** that you have installed, here you can check the system uptime, and it also contains a link on the company's website. Under **Documentation** menu point (blue frame) you can **access all documentations** related to contentACCESS software.



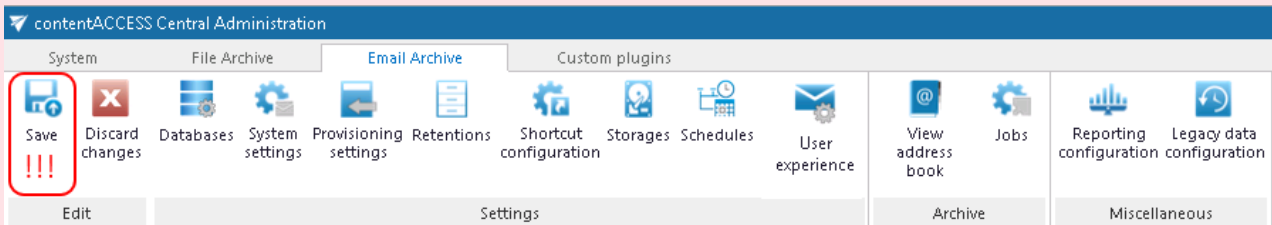
The screenshot shows the user interface for a tenant named 'TECH-ARROW'. A user is logged in as 'Administrator system'. The 'About me' menu is open, showing options like 'About me', 'Change user', and 'Sign out'. A 'contentACCESS information' popup is displayed, showing version 2.5.24.0, branding as TechArrow, and server uptime of 3 days. The main content area shows 'contentACCESS documentations and manuals' with sections for hardware and software requirements, and a list of manuals including 'contentAccess Manual', 'contentACCESS Virtual Drive Installation Manual', 'contentAccess File Archive - Best Practices', 'contentAccess Email Archive - Best Practices', and 'contentAccess Outlook form installation manual'.

Note: In the **About me** menu under the **Security information** in the **Role name** column you can see the role assignment(s) of the signed in user. The **Flags** show whether the rights were given by provisioning job (flag name is **Automatic**) or manually (flag name is **Manual**).

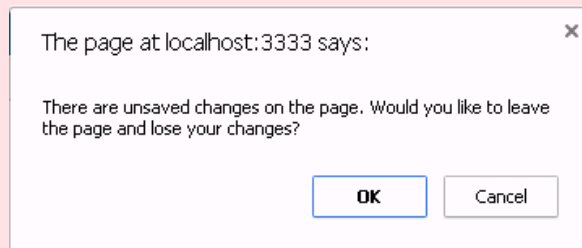
In contentACCESS, the back/forwards button is also supported:

The screenshot shows the 'contentACCESS Central Administration' interface. The browser address bar contains the URL 'tanews:3333/CentralAdministration/Default.aspx?p=aboutme'. The back and forward navigation buttons are circled in red. The interface has a top navigation bar with 'System', 'File Archive', 'Email Archive', and 'Custom plugins'. Below this is a grid of settings and configuration options, including 'Save', 'Discard changes', 'Databases', 'System settings', 'Provisioning settings', 'Retentions', 'Shortcut configuration', 'Storages', 'Schedules', 'User experience', 'View address book', 'Jobs', and 'Legacy data configuration'.

Important!!! Any changes made in the Central Administration must be saved via “Save” button, which is accessible in the left upper corner of the ribbon.



If the user has any unsaved settings, the system will warn him about it:



When you enter to contentACCESS Central Administration for the very first time, you need to create a tenant first (check section [Tenants in contentACCESS](#)). Further you need to adjust the system settings (refer to section [General system configurations](#)).

Tenants in contentACCESS

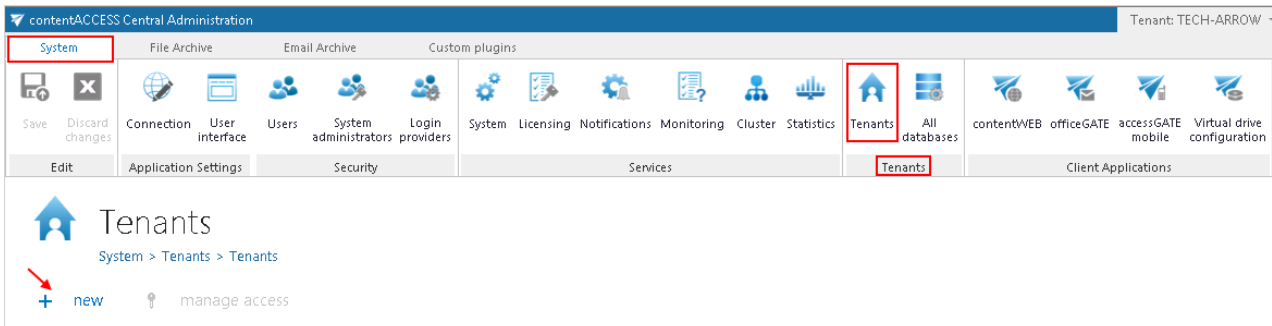
contentACCESS supports multi-tenancy. This section will provide you with information how to create a new tenant (and tenant administrator user) in contentACCESS.

How to create a new tenant

In contentACCESS, only a user with system administrator permissions has the right to create a new tenant. For creating a new tenant, navigate to **System** → **Tenants** → **Tenants** button. Click on the button to open the **Tenants** page. On this page you may find the list of all tenants, which are present



in contentACCESS. If you have not added a tenant to contentACCESS yet, the list is obviously empty. To add a new tenant to the list, click on **+ new**. The **Add new tenant** dialog will open.



Screenshot A: Use existing user as tenant administrator

Screenshot B: Create new tenant administrator

When you are creating a new tenant the same time you need to add a tenant administrator user for it. Type the **Tenant name** into the textbox first. You have now multiple choices how to create a tenant administrator:

A) With selecting **Use existing user as an administrator for this tenant** radio button – select an existing contentACCESS user from the **Select user** dropdown list and click **OK**. This user already has contentACCESS credentials which he will use to log into contentACCESS Central Administration;

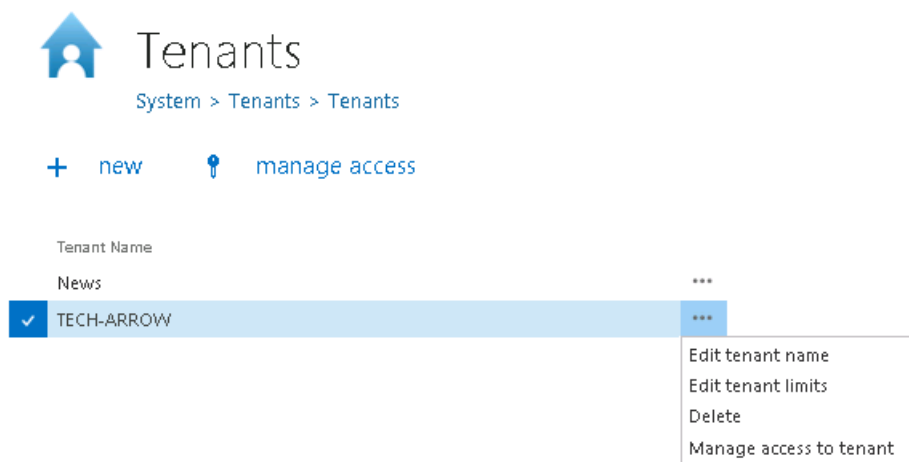
B) If you choose option **Create new tenant administrator** radio button:

1. Type a **Display name** for this new user,
2. Select a login provider configuration from the **Login type** dropdown list (Forms, Windows etc.). Only a provider configuration set up in [Login providers](#) control (System tab → Security → Login providers) can be selected here. **Forms** and **Windows** are enabled by default. It is required to enter



the **Login name** and **Login password** only in case that the **Forms** type has been selected from the list. In case of **Windows**, only the login name must be filled in.

If you filled the required fields click **OK**. The already created tenant will appear in the tenant list on the **Tenants** page. With a left click on the ellipsis (...) the tenant context menu can be opened. The menu allows to edit the tenant name or tenant limitations, to delete the tenant or manage access to it.



Tenant limitations

Each tenant in contentACCESS can manage only processes to which he has got the necessary rights. E.g. while one tenant has the right to archive emails only, another tenant can archive both files and emails using contentACCESS. The tenant rights can be restricted/extended on the **Tenant limitations** page of the respective tenant. Only a system administrator has the necessary right to manage tenant limitations. The administrator may set on this page the:

- **System limitations** – plugins and stores that the given tenant will be able to use
- **Limitations related to the allowed plugins** – e.g. if Email archive plugin is allowed, then the maximum email count, mailbox count and email size that the given plugin can process can be defined

The **Tenant limitations** page can be opened from the context menu of the given tenant. Open the context menu and select “Edit tenant limits”:



Tenants

System > Tenants > Tenants

+ new

🔑 manage access

Tenant Name	...
News	...
<input checked="" type="checkbox"/> TECH-ARROW	... Edit tenant name Edit tenant limits Delete Manage access to tenant

The **Tenant limitation** page is divided into 3 sections:

- **System limitations** – Plugins and stores available for the given tenant may be limited in this section.

By unchecking the “**Unlimited**” checkbox you open the list of plugins/stores. Check the plugins/stores that the tenant should be allowed to use.

System limitations

Plugins:

Unlimited

- Sharing
- Datengut DMS plugin
- Mailbox move
- Email archive
- Email recovery
- Email restore
- Gradient OCR plugin
- PAM4Exchange connector

Stores:

Unlimited

- Datengut
- Azure
- Disk
- EASY
- ELM
- HybridStore
- inPoint
- iTernity

- **Email archive limitations** – If the **Email archive** plugin is allowed, the administrator may limit the mailbox count, email(s) count, email(s) size that the given tenant will be able to archive.

Email archive limitations

Mailbox count:	<input type="text" value="500"/>	Email(s) size:	<input type="text" value="1"/> TB
Email(s) count:	<input type="text" value="100000"/>		

- **File archive limitations** – If the **File archive** plugin is allowed, the administrator may limit the root folder count, file(s) count, file(s) size that the given tenant will be able to archive.


File archive limitations


Root count:	<input type="text"/>	File(s) size:	<input type="text"/> B
File(s) count:	<input type="text"/>		

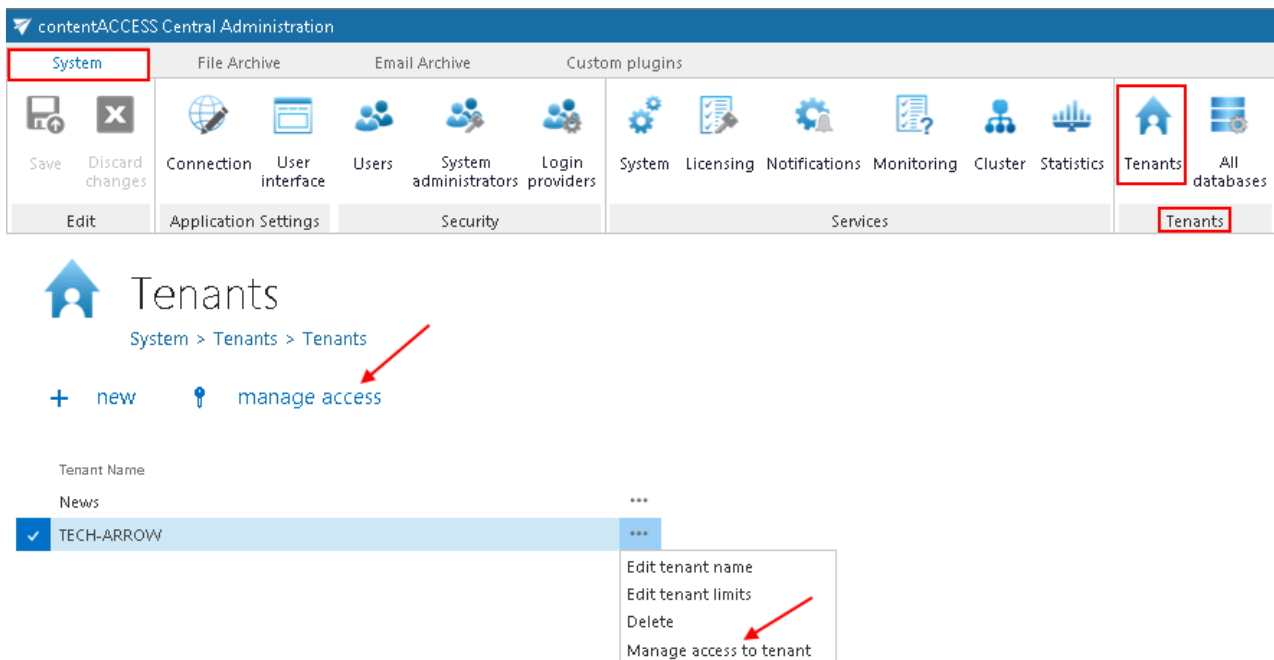
If the Email archive limitations and File archive limitations text boxes are empty, this means that the allowed mailbox/root count and email/file count and size is unlimited.

The tenant administrator may see his own limitations in read only view only.

How to provide access to a tenant (adding new tenant administrators)

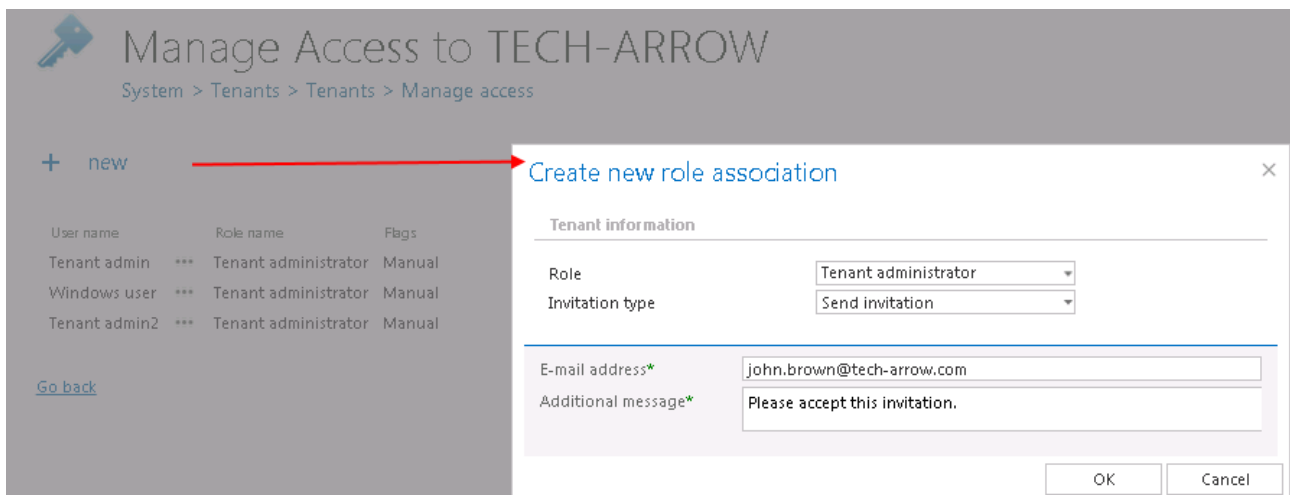
A tenant can have one or more tenant administrators. If you want to provide access to a tenant for one or more users except of the tenant administrator, open the **Tenants** page (**System** → **Tenants** →  **Tenants**), select the tenant from the list, with a left click on ellipsis (...) open the context menu and choose option **Manage access to tenant**.

It is also possible to manage access to the tenant with clicking on the  **manage access** option on the same page. The button is active if the tenant is selected in the grid.



The screenshot shows the 'contentACCESS Central Administration' interface. The 'System' menu item is highlighted in the top navigation bar. Below it, the 'Tenants' icon is also highlighted. The main content area shows the 'Tenants' page with a breadcrumb 'System > Tenants > Tenants'. There are two buttons: '+ new' and 'manage access'. A red arrow points to the 'manage access' button. Below the buttons is a table with one row: 'TECH-ARROW'. A context menu is open over the 'TECH-ARROW' row, showing options: 'Edit tenant name', 'Edit tenant limits', 'Delete', and 'Manage access to tenant'. A red arrow points to the 'Manage access to tenant' option.

With this action you will be redirected to the manage access page of the selected tenant. All currently existing tenant administrators of this selected tenant can be seen on this page. For adding a new tenant administrator to the list click on **+ new** on this page. The **Create new role association** window will open. There are multiple options how to add a new tenant administrator.

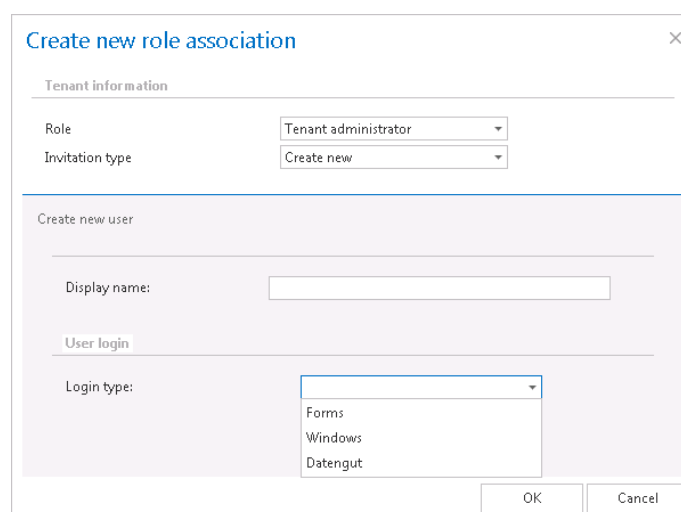


Tenant administrator invitation types

There are multiple options how to add a new tenant administrator in the **Create new role association** window. You can **Create new** user, you can **Search for existing** worker from the company or you can also **Send an invitation** to somebody who is not a contentACCESS user yet. Select the **Tenant administrator** role type from the **Role** dropdown list.

➤ Create new

If you select **Create new**, insert a **Display name** into the dialog first. From **Login type** list select the authentication provider configuration that this user will use when logging in the system. Then fill the credentials (if **Forms** type was chosen then both Login name and Password) and click **OK**.

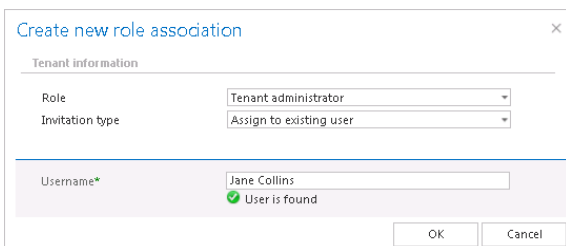


Note: Only a provider configuration set up in [Login providers](#) control (System tab → Security → Login providers) can be selected from the list of login types. **Forms** and **Windows** are enabled by default.

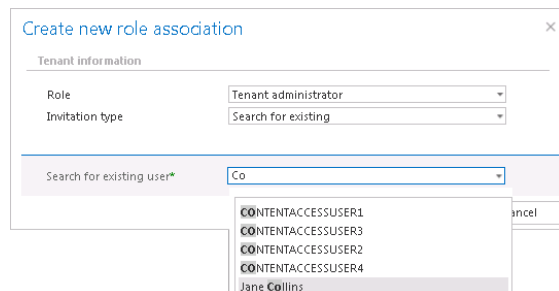
➤ Search for existing/Assign to existing user

To the **Search for existing user*** field fill in part of name of the person you want to find. After you have selected the user click **OK**. This user will use his already existing credentials to log into Central Administration.

Note: The invitation type can be used if user searching is enabled in the User search settings (more information [here](#)).



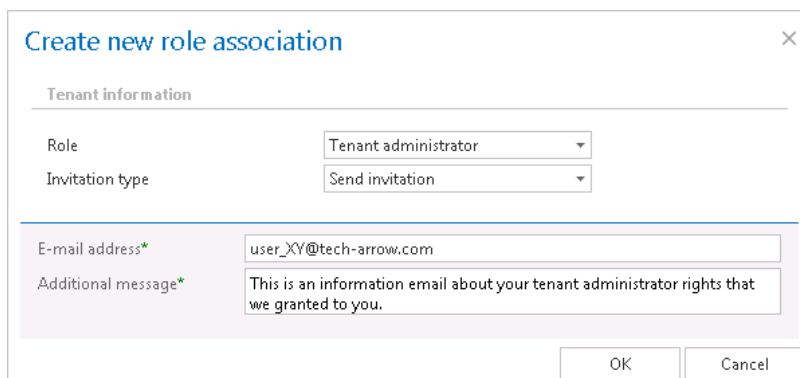
Screenshot A: Granting tenant administrator rights for Jane Collins if user searching is **disabled**



Screenshot B: Granting tenant administrator rights for Jane Collins if user searching is **enabled**

➤ Send invitation

This option enables for you to invite a person (who is not a contentACCESS user yet) to be a tenant administrator to your tenant. Select the **Tenant administrator** role type, enter the **E-mail address*** of the new user who you wish to invite, and fill the **Additional message*** textbox which will be included in the email message that the invited user will receive from you. Then click **OK**.



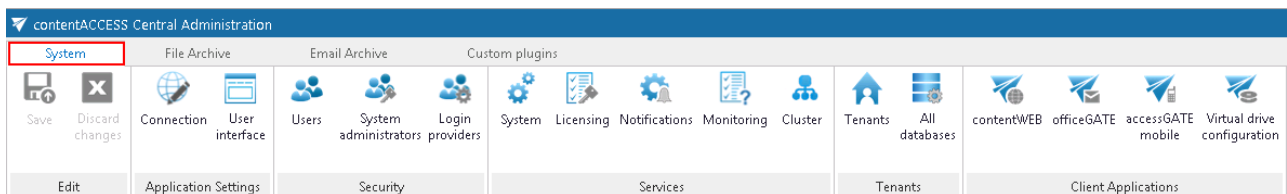
The invited person will get an invitation message from you. If the user accepts your invitation he/she will be redirected automatically on the login page of contentACCESS. Here he can configure his



authentication provider that he prefers to use for future logins into the system (this can be adjusted with navigating to **System** → **Security** → **Login providers**).

General system configurations

General system settings of contentACCESS are available with clicking on the **System** ribbon tab.




Only a user with system administrator permissions has the right to configure system settings. The user may find here all general system settings.

The **Application settings** are set by default, but can be changed (not recommended). Under **Security settings** the user may find all users and system administrators, and here he may configure new authentication providers for the users. Under **Services** it is possible to activate the license key, set up external accessibility settings, change system database connections, set default values for the clustering etc. Under **Tenants** the administrator may create new tenants and create databases for these tenants. Under **Client Applications** group the contentACCESS client applications are accessible. Virtual drive must be configured if File system archive is used..

If you do not use Email Archive based plugins and also do not use accessGATE Mobile, the FQDN settings (accessible under **System** → **Services** → **System**) are also irrelevant.

In the following subchapters we will go through each of these settings:


Connection

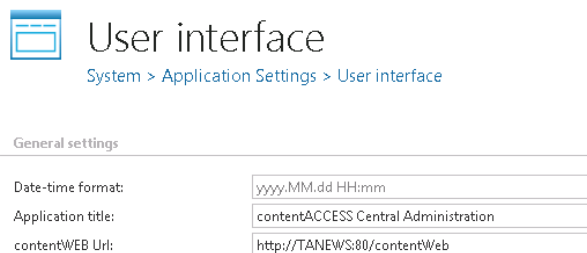
Navigate to **System** → **Application settings** →  **Connection** button. Here can be found and edited service connection settings such as contentACCESS URL, plugins, plugin controls and storage controls directories. Plugins, plugin controls and storage controls directories are set by default as on the screenshot below, but in case you need to place them somewhere else on your computer you can change the destinations right here (not recommended):



Plugins directory:	C:\Program Files\TECH-ARROW\contentACCESS\GATE.contentAccess\Plugins
Storage controls directory:	C:\Program Files\TECH-ARROW\contentACCESS\CentralAdministration\Storages
Plugin controls directory:	C:\Program Files\TECH-ARROW\contentACCESS\CentralAdministration\PluginControls

User interface

Navigate to **System** → **Application settings** →  **User interface** button. Here you can edit the general settings of contentACCESS interface. You can choose the Date-time format, rename the application (by default the title is contentACCESS Central Administration) and you can also enter here the contentWEB URL (by default it is filled in by the contentACCESS setup):



User interface
System > Application Settings > User interface

General settings

Date-time format:


Application title:

contentWEB Url:

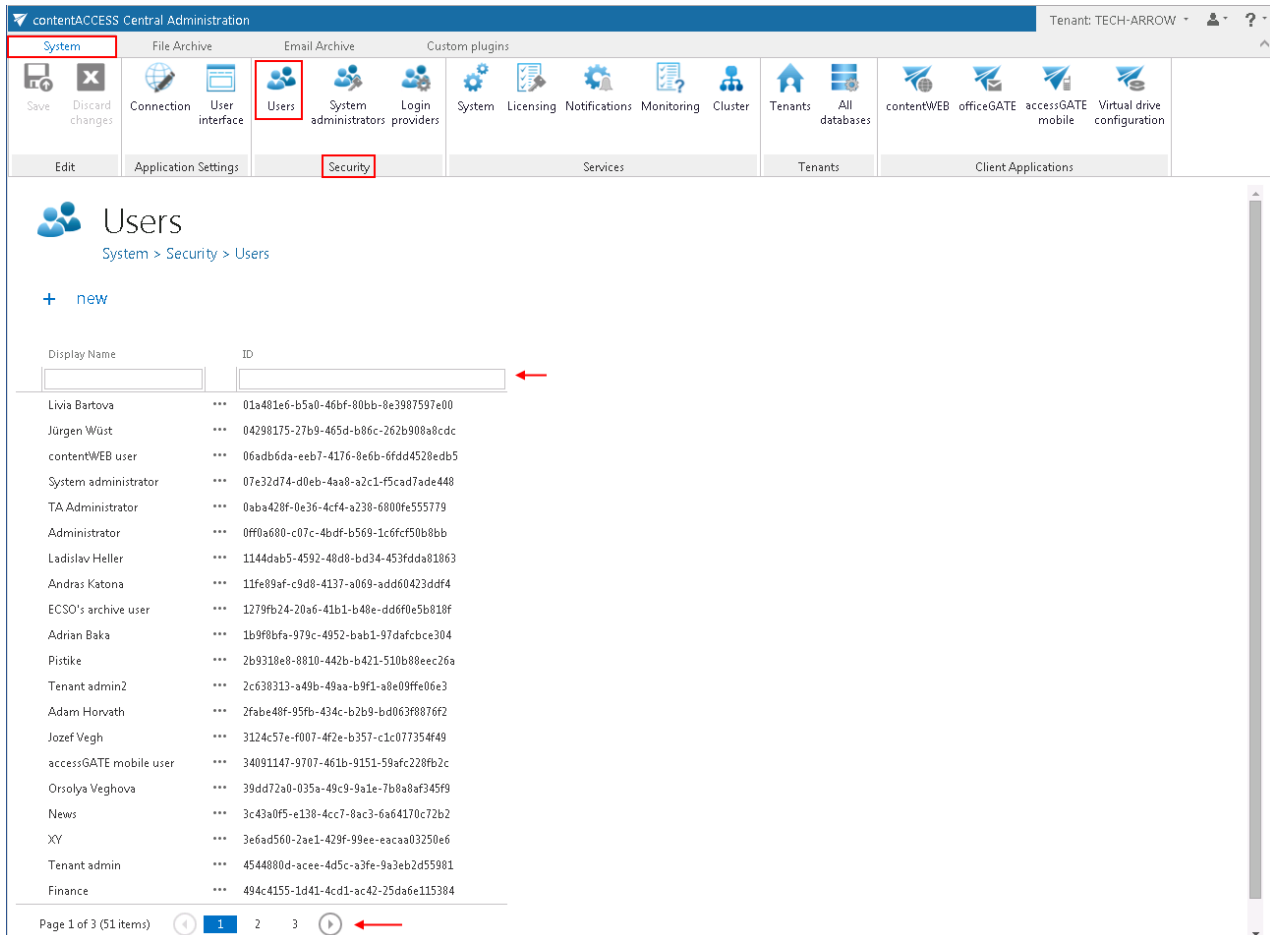
Users – role types, creating new users, adding user logins

There are 3 main user/role types in contentACCESS. Each of them have certain permissions depending on the status that they have in contentACCESS:

- A **system administrator** user has permissions to do any necessary system configurations in contentACCESS Central Administration, and he can access any components of the software. He designates a tenant administrator when creating a tenant. He can also grant system administrator rights to other users of contentACCESS;
- A **tenant administrator** is allowed to do any necessary configurations on the level of his own tenant, and he can further create standard users to his own tenant. Moreover, he can further assign his tenant administrator roles to a standard user;
- A **standard user** is either created by a system administrator, or by a tenant administrator. By default, a standard user does not have any specific role in contentACCESS, but a system and tenant administrators can grant further permissions for him. Standard user role is typically created for end users, who obtain access permissions on contentWEB to be able to access their assigned archives.

All currently present users of the system are listed on the **Users** page (open it with navigating to **System** → **Security** →  **Users** button). From the user's context menu (click on "...") it is possible to

edit the user's details or delete the user from the list. To simplify searching between the users you may use the quick search function. **Searching is based on the Display Name and the ID-number.** It is also possible to list between the pages.



contentACCESS Central Administration Tenant: TECH-ARROW

System File Archive Email Archive Custom plugins

Save Discard changes Connection User interface Users System administrators Login providers System Licensing Notifications Monitoring Cluster Tenants All databases contentWEB officeGATE accessGATE mobile Virtual drive configuration

Edit Application Settings Security Services Tenants Client Applications

Users

System > Security > Users

+ new

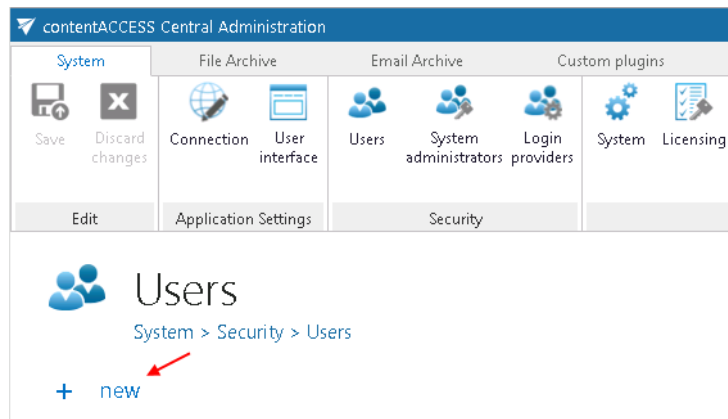
Display Name ID

Livia Bartova	*** 01a481e6-b5a0-46bf-80bb-8e3987597e00
Jürgen Wüst	*** 04298175-27b9-465d-b06c-262b908a0cdc
contentWEB user	*** 06adb6da-eeb7-4176-8e6b-6fdd4528edb5
System administrator	*** 07e32d74-d0eb-4aa8-a2c1-f5cad7ade448
TA Administrator	*** 0aba428f-0e36-4cf4-a238-6800fe555779
Administrator	*** 0ff0a680-c07c-4bdf-b569-1c6fcf50b8bb
Ladislav Heller	*** 1144dab5-4592-48d8-bd34-453fda01863
Andras Katona	*** 11fe89af-c9d8-4137-a069-add60423ddf4
ECSSO's archive user	*** 1279fb24-20a6-41b1-b48e-dd6f0e5b818f
Adrian Baka	*** 1b9f8bfa-979c-4952-bab1-97dafcbce304
Pistike	*** 2b9318e8-8810-442b-b421-510b88ec26a
Tenant admin2	*** 2c638313-a49b-49aa-b9f1-a8e09ffe06e3
Adam Horvath	*** 2fabae48f-95fb-434c-b2b9-bd063f8876f2
Jozef Vegh	*** 3124c57e-f007-4f2e-b357-c1c077354f49
accessGATE mobile user	*** 34091147-9707-461b-9151-59afc228fb2c
Orsolya Veghova	*** 39dd72a0-035a-49c9-9a1e-7b8a8af345f9
News	*** 3c43a0f5-e138-4cc7-8ac3-6a64170c72b2
XY	*** 3e6ad560-2ae1-429f-99ee-eacaa03250e6
Tenant admin	*** 4544880d-acee-4d5c-a3fe-9a3eb2d55981
Finance	*** 494c4155-1d41-4cd1-ac42-25da6e115384

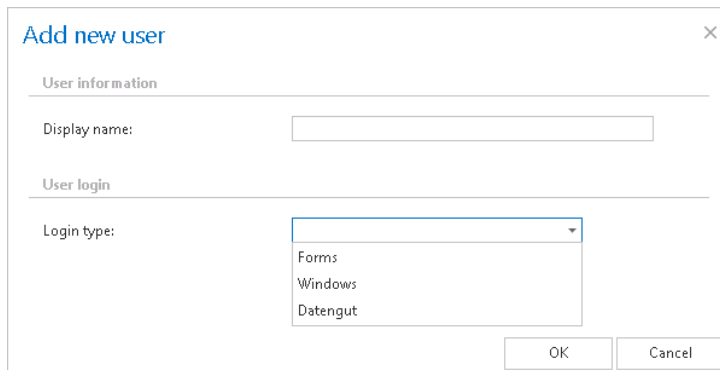
Page 1 of 3 (51 items) 1 2 3

Note: It is good to know that from security reasons it is impossible to delete all system administrators from the list of users. It is possible to delete users with system admin permissions except of the default system administrator.

On the **Users** page you may add new standard users to the system. For adding a new user to contentACCESS click on **+ new**.



The **Add new user** dialog will open. Type in the user's name into the dialog box, and choose an authentication provider configuration from the **Login type** dropdown list. Only provider configurations set up on the [Login providers](#) page can be selected here. By default, there are 2 providers that can be used: **Forms**, and **Windows**. If you select the **Forms** type, then the login credentials must be also entered into the dialog. Click **OK**. The new user will be added to the **Display name** column.



How to check user information? Double click on the corresponding user on the **System → Security → Users** page. The **User details** page will open, where all user information can be checked:



contentACCESS Central Administration

System | File Archive | Email Archive | Custom plugins

Save | Discard changes | Connection | User interface | **Users** | System administrators | Login providers | System | Licensing | Notifications | Monitoring | Cluster | Tenants | All databases

Edit | Application Settings | **Security** | Services | Tenants



User details

System > Security > Users > User details

User details

Display name: Administrator
 Is system admin: Yes

Security information

User name	Role name	Flags	Description
Administrator	*** System administrator	Manual	Administrator has System administrator rights on System (#)
Administrator	*** Tenant administrator	Manual	Administrator has Tenant administrator rights on Tenant TECH-ARROW

User logins

+ new

Login Type	Login Name	External Id
*** Forms	system	
*** Windows	ta\administrator	S-1-5-21-1454735840-2720631597-1747903052-500

[Go back](#)

Under **Security information** section the user role types can be checked; if the selected user is a tenant or system administrator, or a standard user only. Each user can have a manual or automatic flag. **Manual** flag means that the user got his rights manually. **Automatic** flag means that the role was created by the provisioning job. Automatic flags are marked with “(100)”, which is the mark of the provisioning job. In the **Description** column you may check the tenants and systems, on which the user has got tenant or system administrator permissions.

How to create user logins to an already existing user? In System → Security → Users, under section **User logins** click on **+ new** button to add new user login to the selected user.

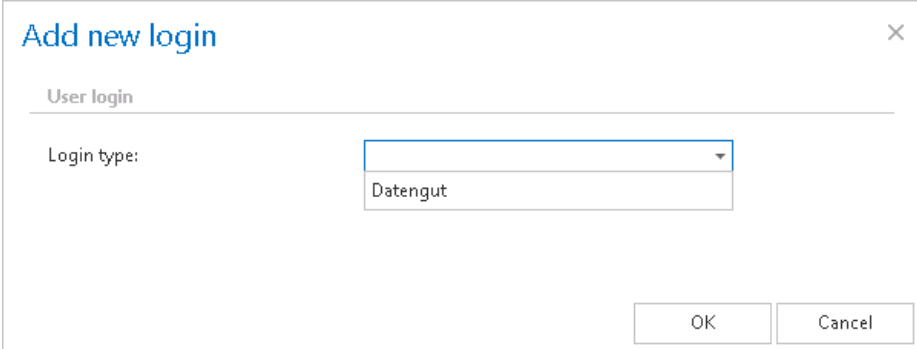
User logins

[+ new](#)

	Login Type	Login Name	External Id
***	Forms	system	
***	Windows	ta\administrator	S-1-5-21-1454735840-2720631597-1747903052-500

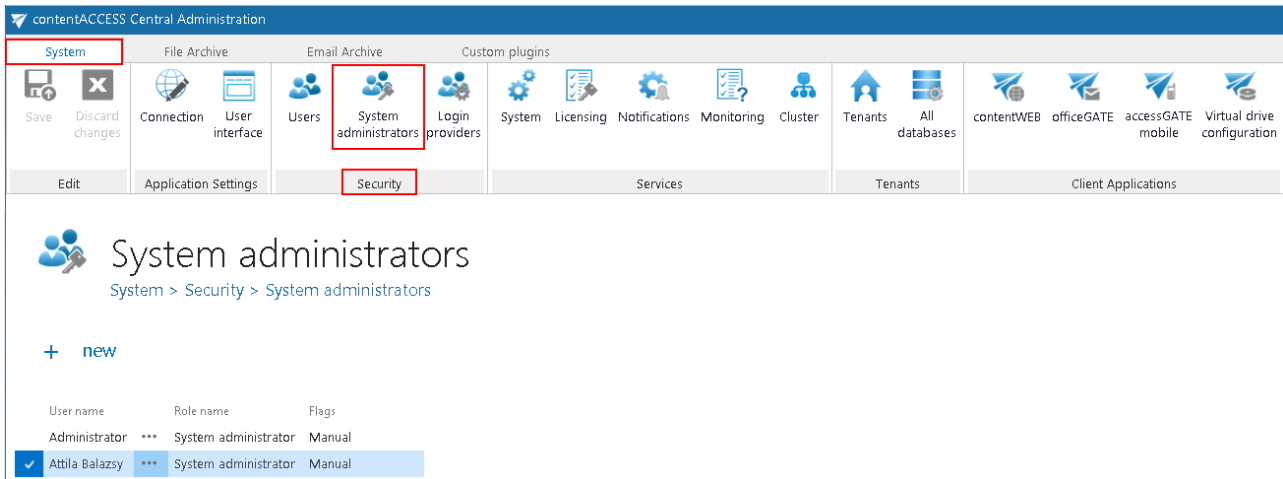
[Go back](#)

In the **Add new login** dialog, select a provider configuration that you would like to use when logging into the system. The providers, that were configured on the **Login providers** page (for more information check "[Login providers](#)") can be selected here. **Windows** and **Forms** type login providers are enabled by default. If the user already has **Forms** and **Windows** user logins (like in this case), then these providers will not appear in the **Login type** dropdown list (multiple user logins are not enabled by these login types).



System administrators

System administrators are those users who have the right to do any necessary settings to the system. You can have multiple system administrators and their list can be accessed by navigation to the **System** → **Security** → **System administrators** button, on the **System administrators** page:



contentACCESS Central Administration

System administrators

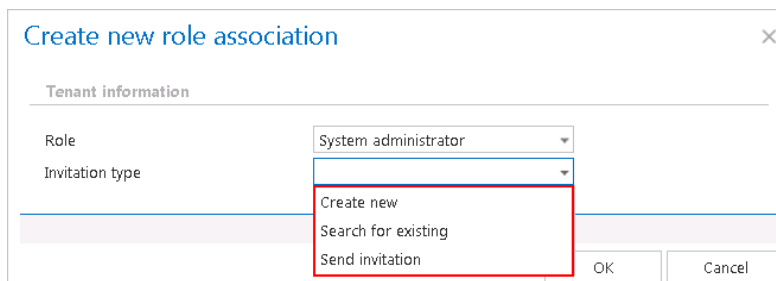
System > Security > System administrators

+ new

User name	Role name	Flags
Administrator	System administrator	Manual
Attila Balazsy	System administrator	Manual

For adding a new system administrator click on **+new**. With this action, the **Create new role association** dialog will open.

When adding a new system administrator to the system you have 3 options, so called invitation types which describe how to add him/her. Select **System administrator** from the **Role** dropdown list. Now, roll down the **Invitation type** dropdown list, and select the method, how you would like to add the administrator. There are 3 options: 1) **Create new**, 2) **Search for existing/Assign to existing user** or 3) **Send an invitation**.



Create new role association

Tenant information

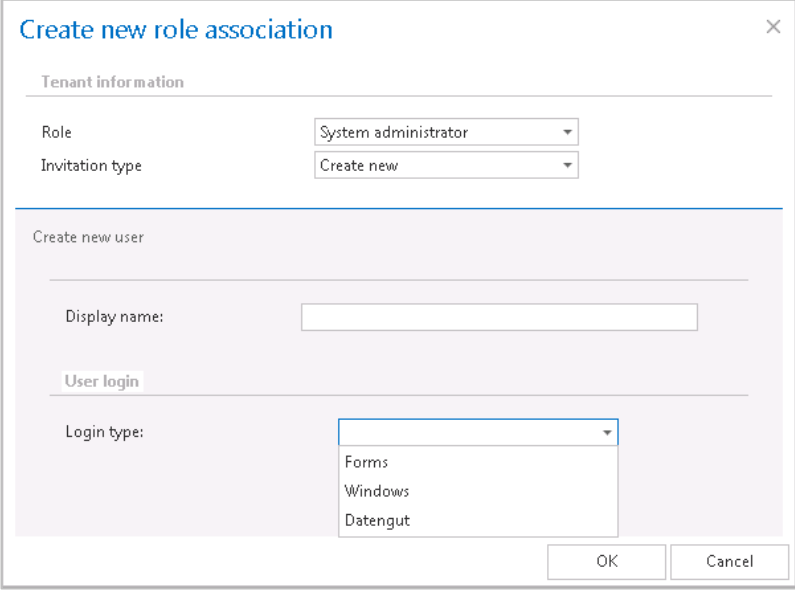
Role: System administrator

Invitation type: Create new

OK Cancel

➤ Create new

If you have selected the **Create new** option you must enter the **Display name** for the new administrator, for example “System administrator”. From the **Login type** list select the already configured authentication provider that he/she will use when logging in the system. Only provider configurations set up on the “[Login providers](#)” page can be selected here (Forms and Windows is enabled by default). Then fill the credentials (if **Forms** type was chosen then both Login name and Password) and click **OK**. (If you would like to use login providers which differ from the providers in the **Login type** list, refer to section “[Login providers](#)” and configure new providers.)



Create new role association

Tenant information

Role: System administrator

Invitation type: Create new

Create new user

Display name:

User login

Login type: Forms

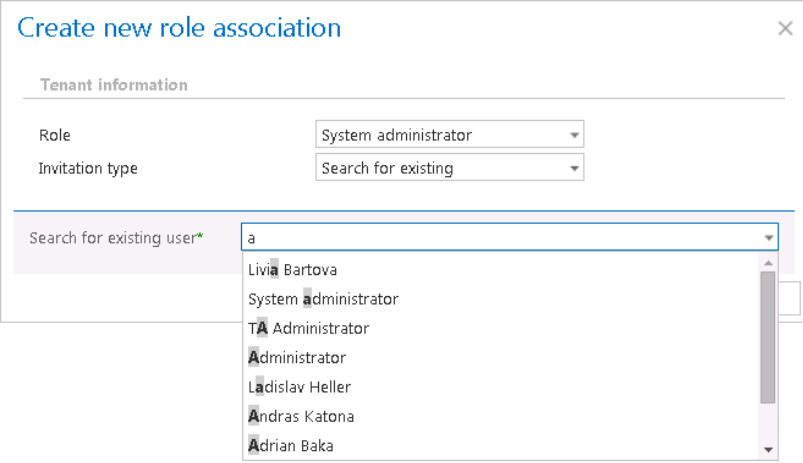
Windows

Datengut

OK Cancel

➤ Search for existing/Assign to existing user

To the **Search for existing user** field fill in part of name of the already existing user who you want to find. After you have selected the user click **OK**. This invitation type is available if user searching is enabled in the **User search settings** (more information [here](#)).



Create new role association

Tenant information

Role: System administrator

Invitation type: Search for existing

Search for existing user* a

- Livia Bartova
- System administrator
- TA Administrator
- Administrator
- Ladislav Heller
- Andras Katona
- Adrian Baka

Option **Assign to existing user** is available if the user searching is disabled in **User search settings** (read more [here](#)). Simply type in the entire username into the dialog and assign the rights to this user.



Create new role association ✕

Tenant information

Role:

Invitation type:

Username*:
✔ User is found

Note: please keep in mind that **Search for existing user/Assign to existing user** invitation types are searching among users who are already present between the contentACCESS users. **Send invitation** invitation type, on the other hand can be sent to any potential users/administrators who are not members of contentACCESS system yet.

➤ Send invitation

This option enables to invite a new member to whom you decided to grant system administration permissions. Select the **System administrator** role type, enter the **E-mail address*** and fill the **Additional message*** textbox which will be included in the email message that the invited user will receive from you. Then click **OK**.

Create new role association ✕

Tenant information

Role:

Invitation type:

E-mail address*:

Additional message*:

For deleting administrators select the administrator from the list, click on the ellipsis (**...**) to open the context menu, and delete the user.



System administrators

System > Security > System administrators

+ new

User name	Role name	Flags
✓ Administrator	*** System administrator	Manual
	Delete	

Note: It is good to know that from security reasons it is impossible to delete all system administrators from the list of users. It is possible to delete users with system admin permissions except of the default system administrator.

Login providers

A contentACCESS user may log into contentACCESS (and/or its client applications such as contentWEB, officeGATE etc.) with an external user account (using third-party providers) or internal (“Forms” provider) user account.

The following external authentication providers are available in contentACCESS:

- Windows
- Azure
- Google
- Datengut (allows to log into client application officeGATE; Datengut plugin must be licensed)
- Perceptive (allows to log into client application officeGATE, Perceptive DMS must be licensed)

If you use a third party provider then this third party authentication provider will authenticate you when logging into the system. The **Forms** type requires to enter credentials when logging in.

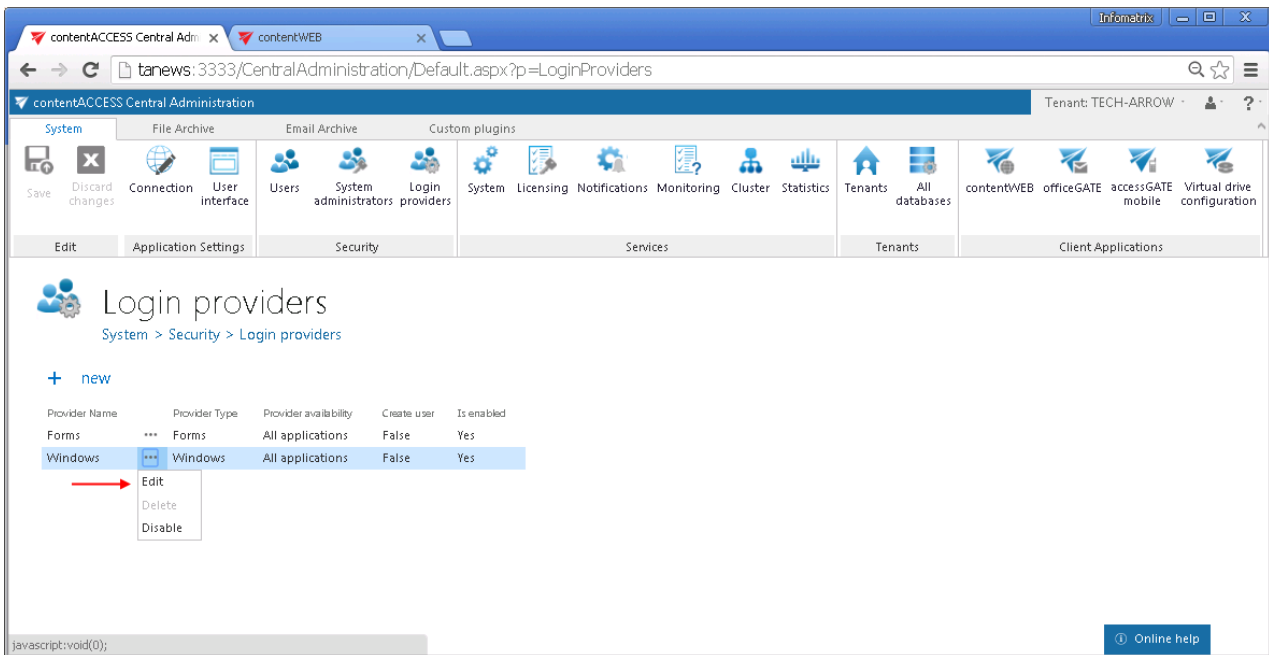
When setting up a user account, a login type must be always selected. Users can only use login types which have been enabled in “Login providers”. “Windows” and “Forms” login providers are enabled by default. Other providers are available only after they are configured. The configuration steps required for third-party providers are detailed in the [External login provider configuration](#) chapter.

The list of enabled providers can be found on the **Login providers** page. To open it, navigate to the **System** tab → **Security** group on the ribbon and click on the **Login providers** button.



To edit or enable/disable/delete providers, open its context menu on the **Logins provider** page, and click on the desired item in the dropdown list. If a provider is disabled, it will not be possible to log in to contentACCESS with it. For security reasons, the user can't delete "Windows" and "Forms" login configurations, and can't disable "Forms" authentication.

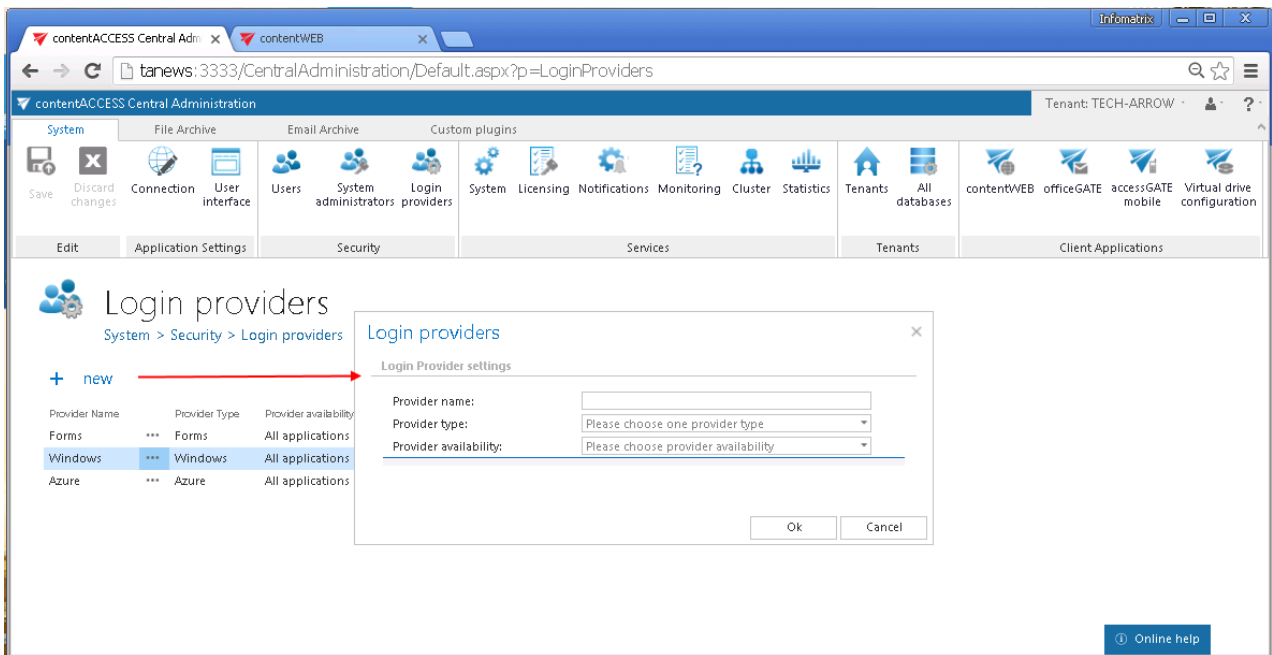
If there is a 3rd party login provider configuration created (like Perceptive) and a user is already using it, then this provider can only be disabled, but can't be deleted.



External login provider configuration

To configure a new login provider, click on **+new** on the **Logins provider** page. The **Login providers** dialog will open which requires to:

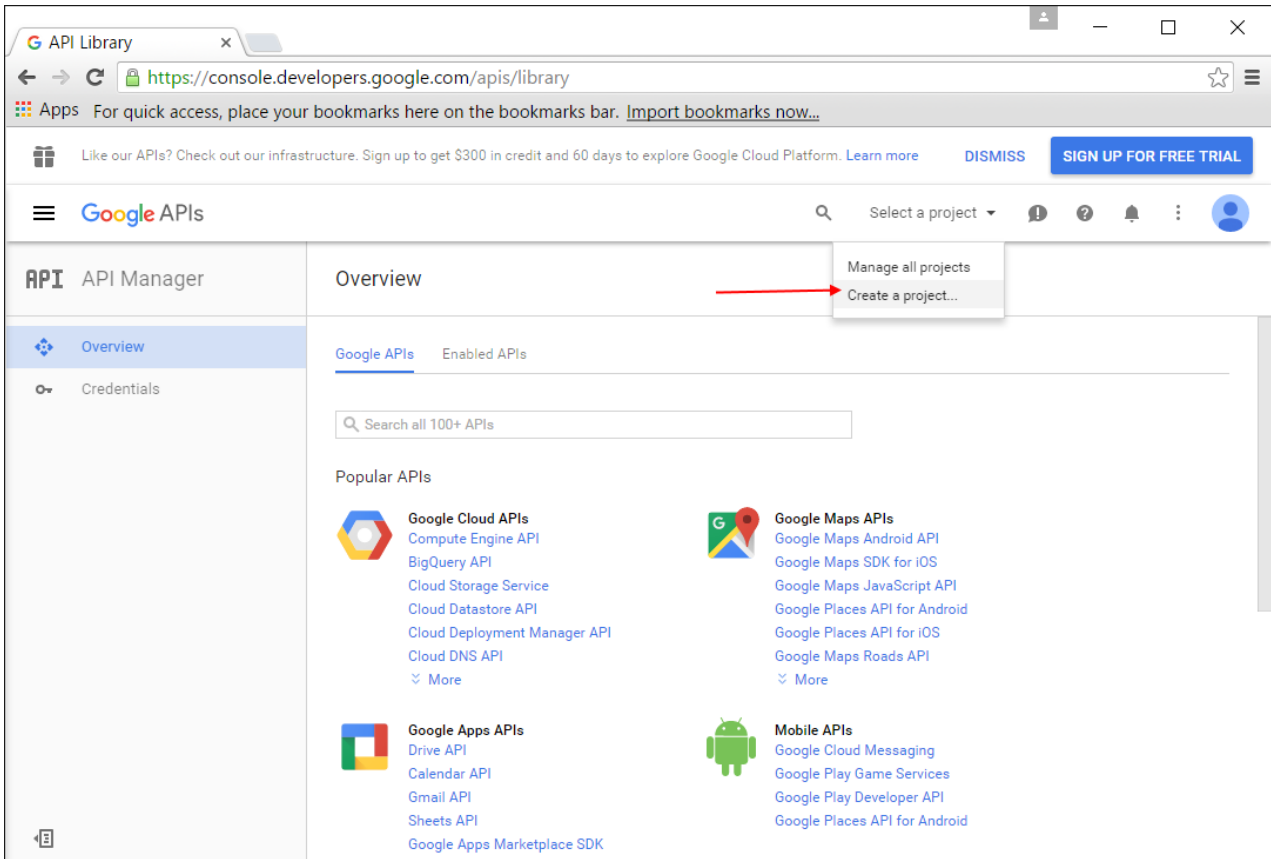
- name the provider,
- choose a supported external provider from the **Provider type** list,
- set the provider availability – here you may set the applications that will use the given provider
- fill the required fields – detailed below for the provider types
- and click on **OK** to save the settings.



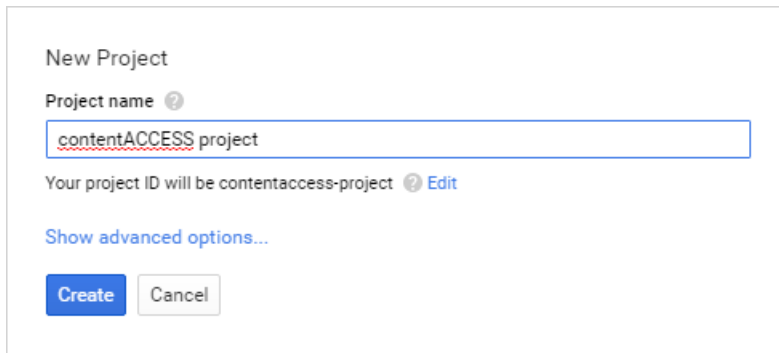
Configuring Google OAuth:

contentACCESS supports Google authentication as well. Would you like to use it, you need to apply for a Client ID and Client Secret by registering the contentACCESS application on the **Google Developers Console** page first. Open the page, sign in with your Google account and follow these steps:

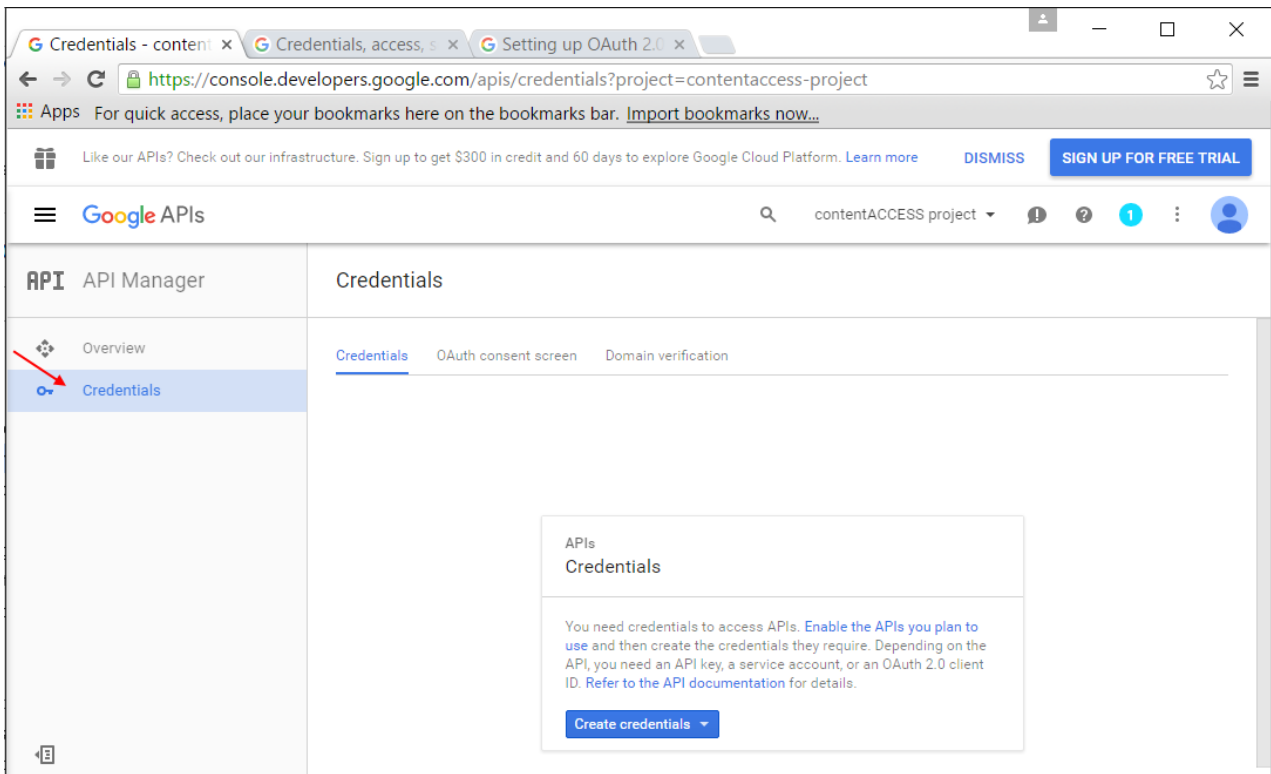
- 1) Click “Create a project” in the upper right “Select a project” menu:



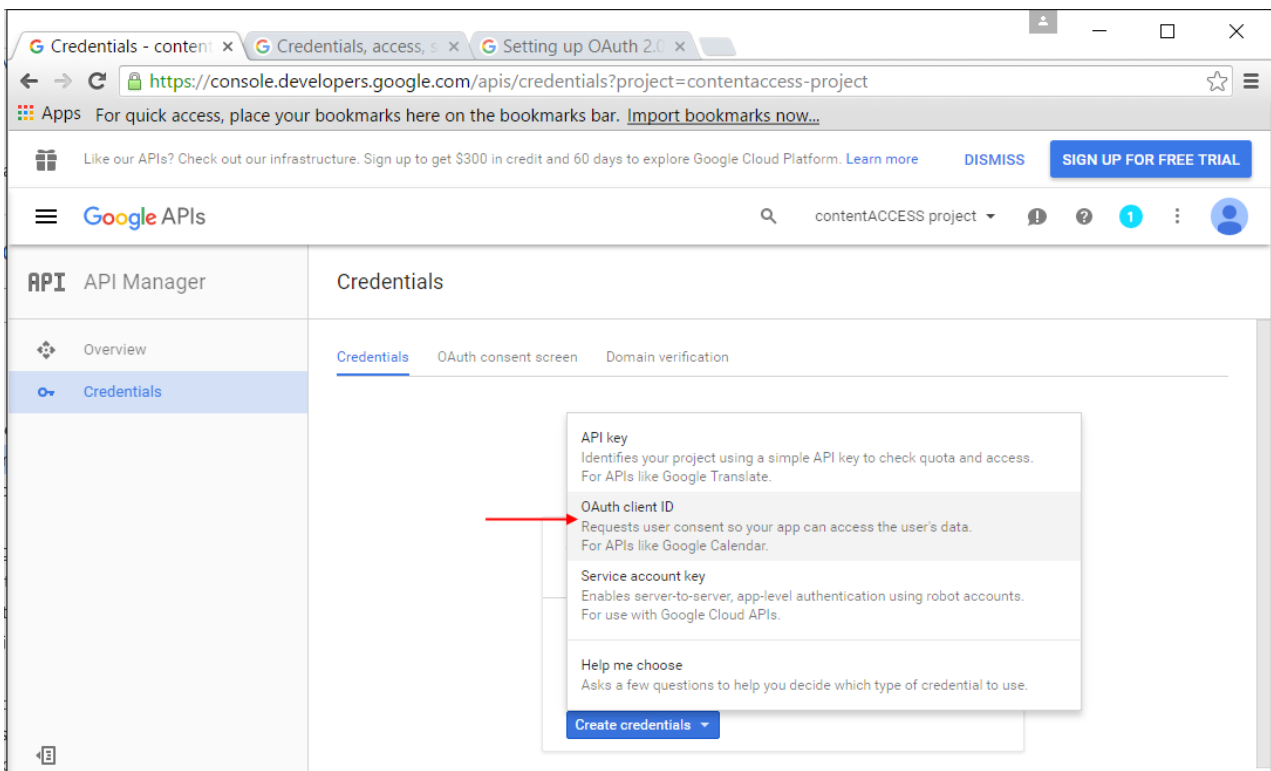
2) Name your project and create it:



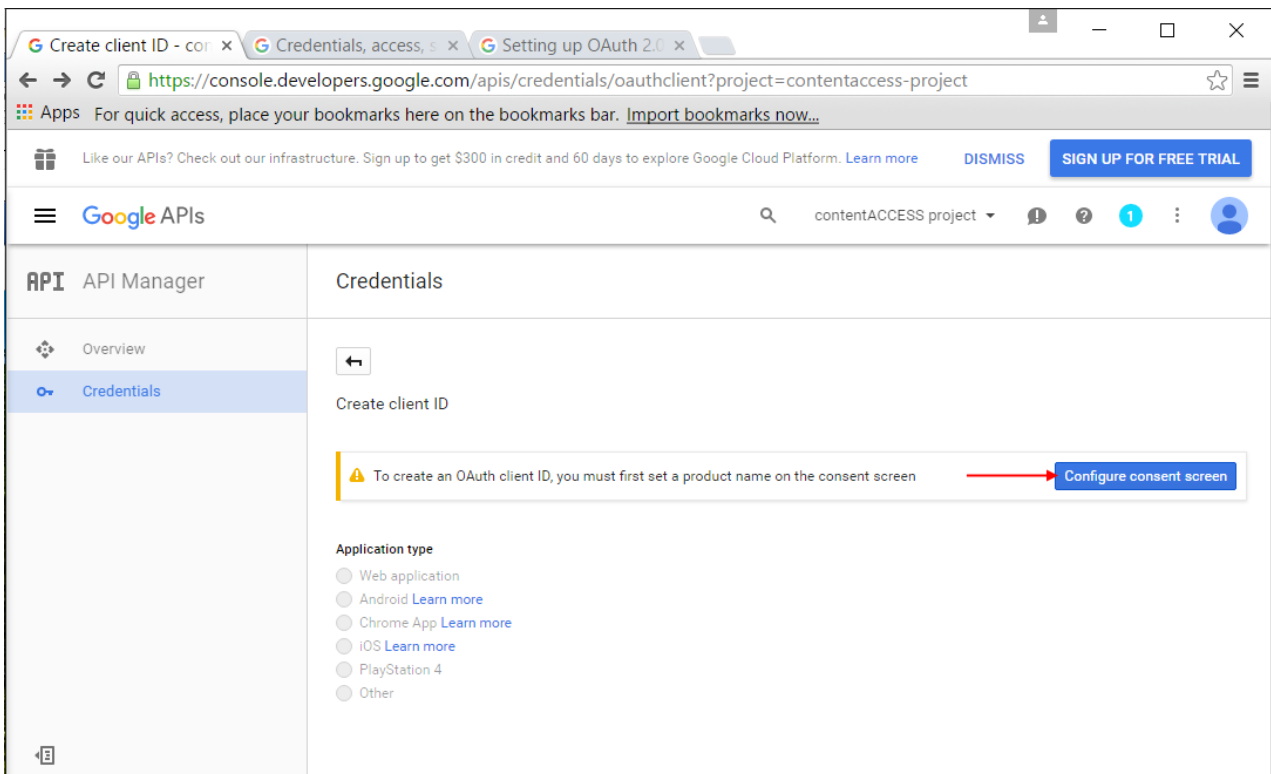
3) If the API Manager page isn't already open, open the console menu and select "API manager". On the left, click "Credentials".



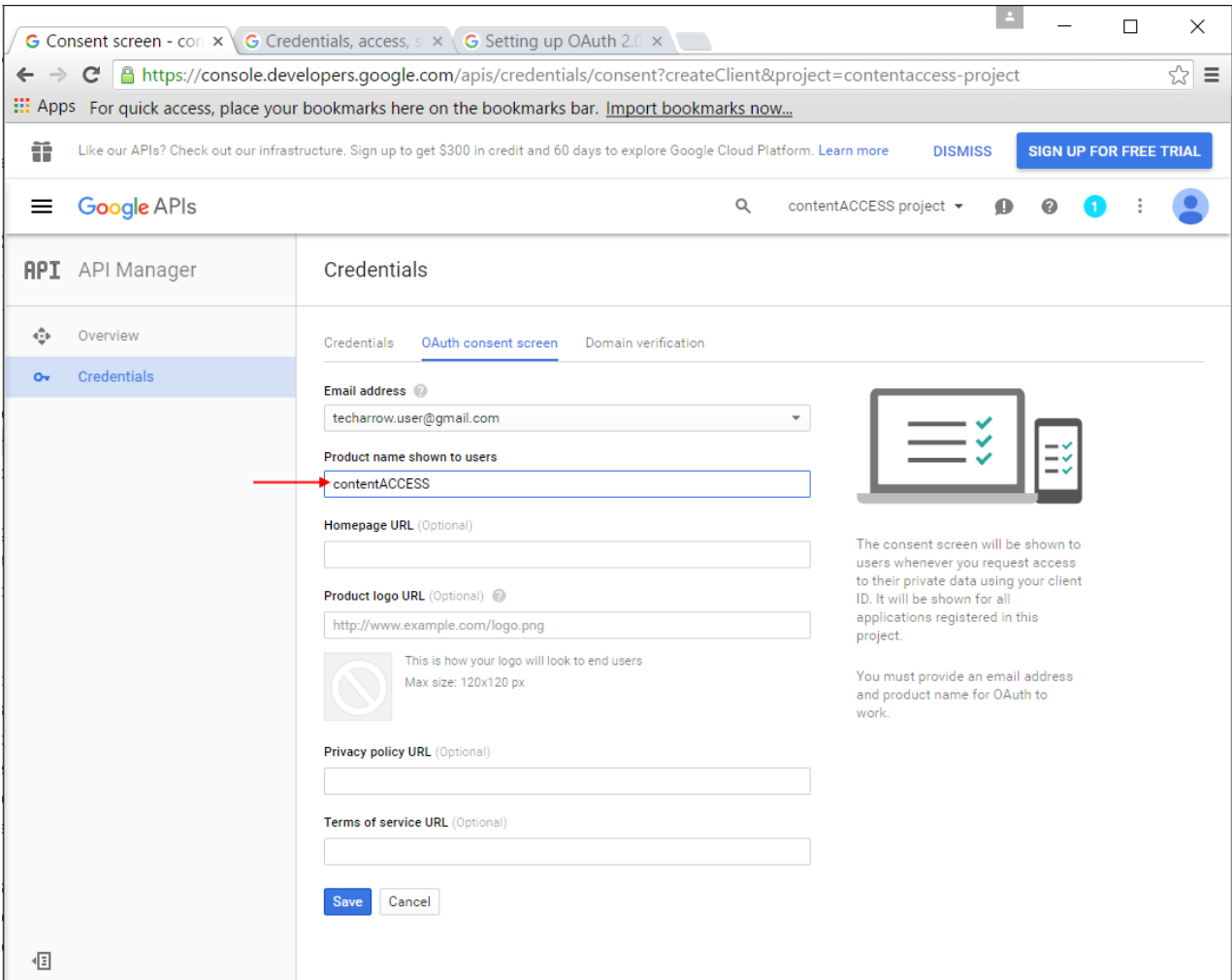
4) Click “Create credentials”, then select “OAuth client ID”.



5) If this is your first time creating a client ID, configure your consent screen by clicking “**Configure consent screen**”.

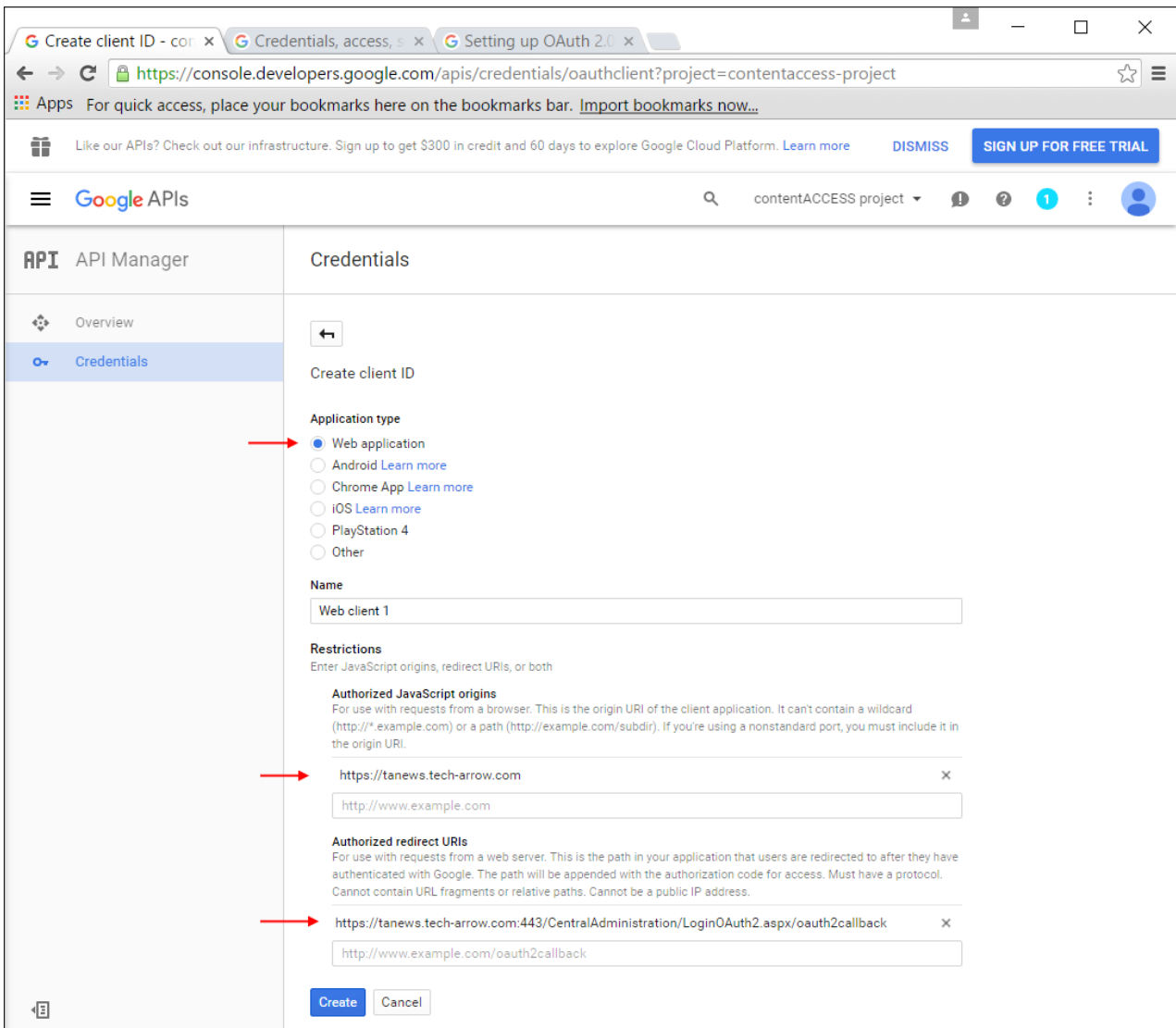


6) Enter the product name and fill the optional fields if you want. Save your settings.

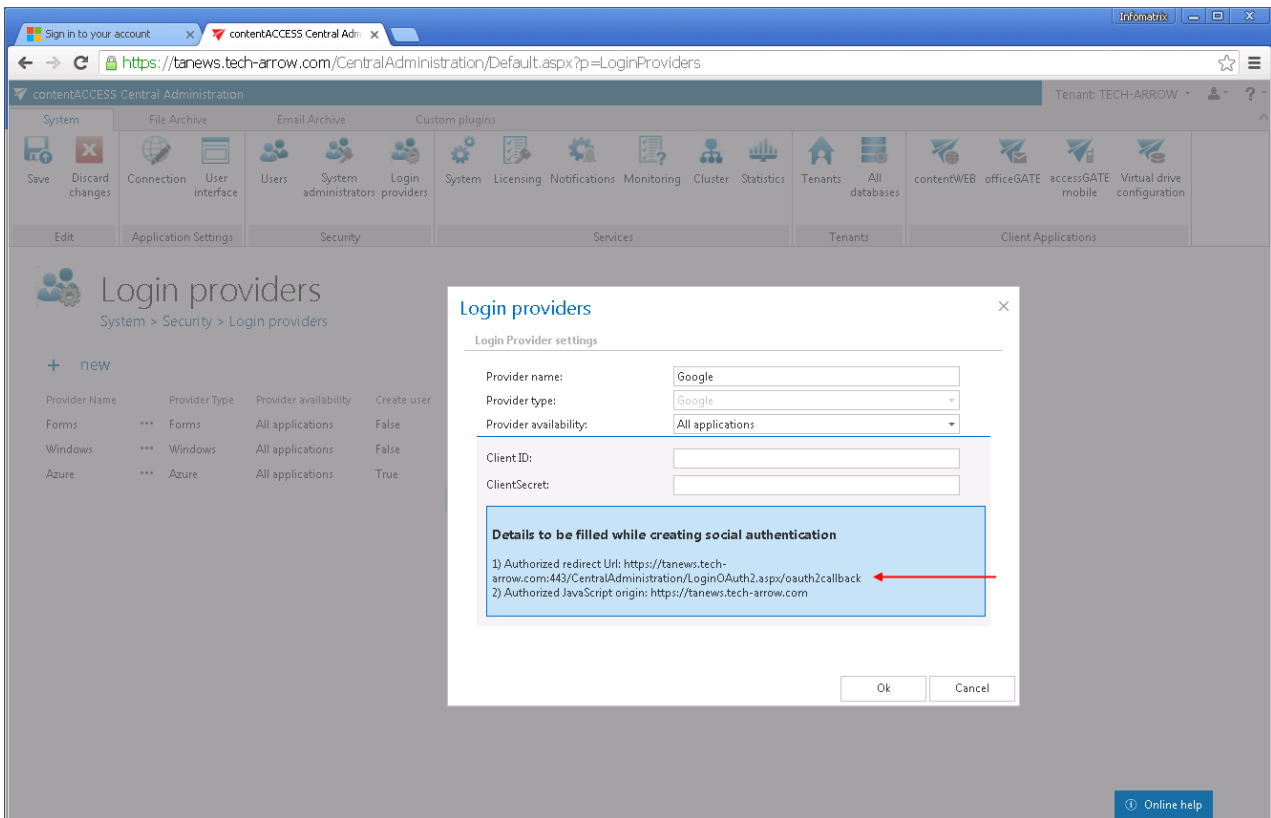


The screenshot shows the Google API Manager interface for configuring an OAuth consent screen. The 'Credentials' section is active, and the 'OAuth consent screen' tab is selected. The 'Product name shown to users' field is highlighted with a red arrow and contains the text 'contentACCESS'. Other fields include 'Email address' (techarrow.user@gmail.com), 'Homepage URL' (empty), 'Product logo URL' (http://www.example.com/logo.png), 'Privacy policy URL' (empty), and 'Terms of service URL' (empty). A 'Save' button is visible at the bottom left of the form area. On the right, there is a diagram of a laptop and a smartphone with checkmarks, and explanatory text: 'The consent screen will be shown to users whenever you request access to their private data using your client ID. It will be shown for all applications registered in this project. You must provide an email address and product name for OAuth to work.'

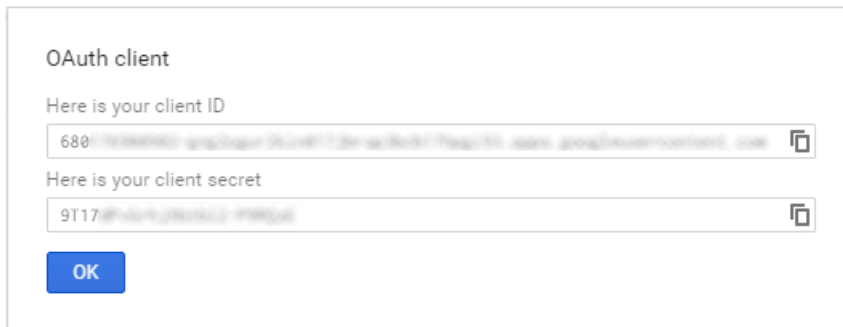
- 7) Select the WEB application type for your project and enter JavaScript Origins, redirect URLs or both to the appropriate text fields.



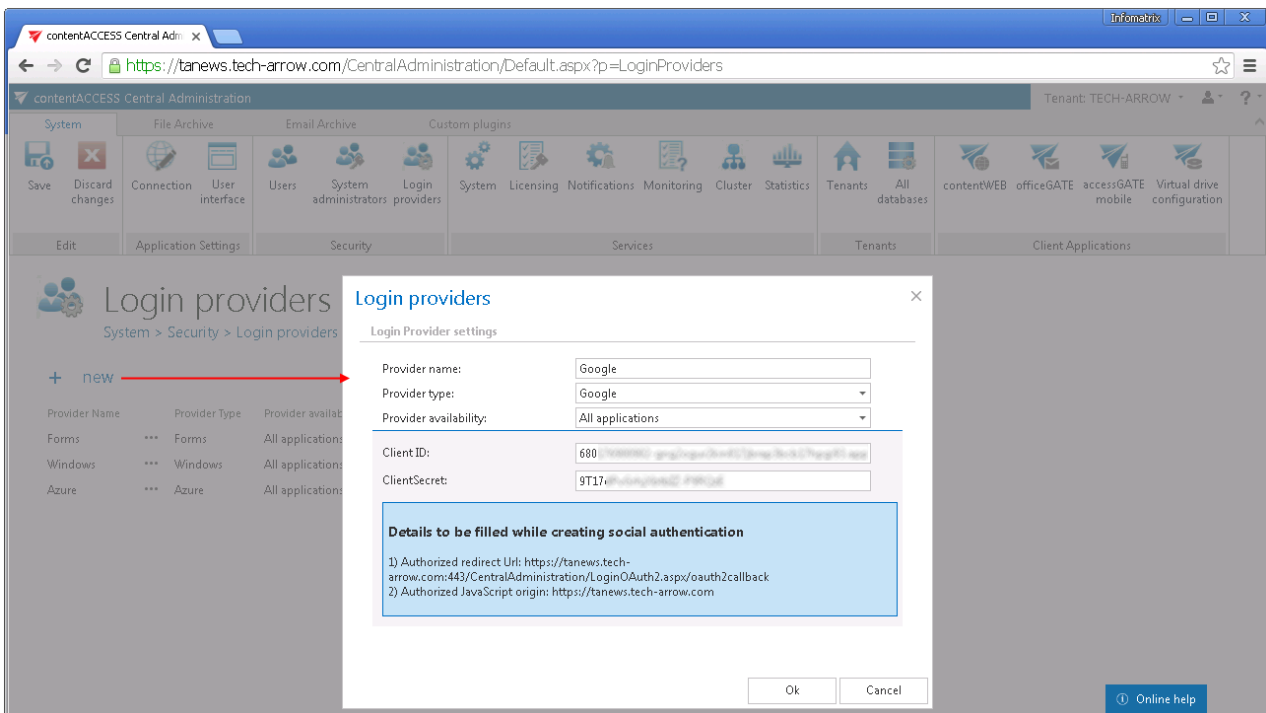
Use the URLs accessible in the Google login provider's window in contentACCESS Central Administration, like in the blue frame on the picture below.



8) Click “Create” on the Google developers console and the Client ID and Client Secret will be created automatically. Save these values somewhere on your computer:



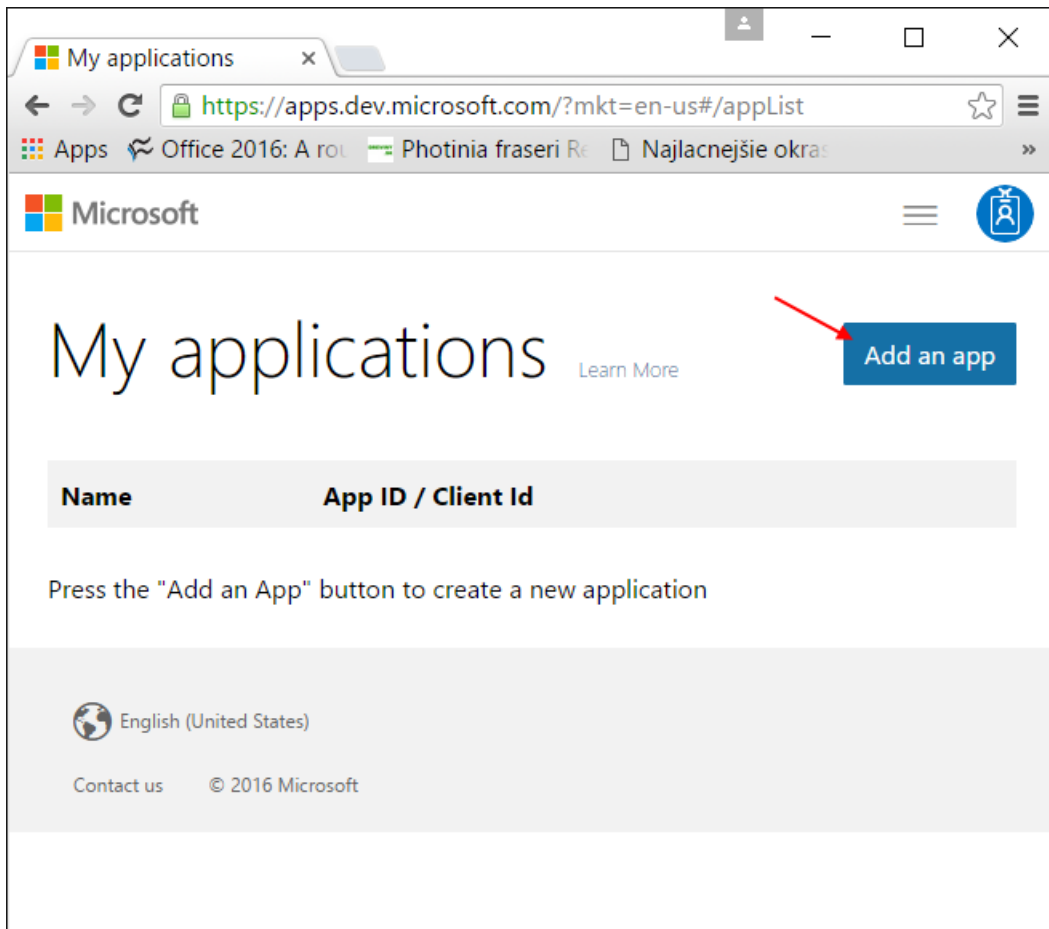
Now configure your **Login provider** in contentACCESS Central Administration. Open the **Login providers** page (**System** → **Security** → **Login providers**), click here on “+new”. In the **Login providers** window name your provider, select **Google** provider type and choose the application that should use this authentication type. Further enter the **Client ID** and **Client Secret** from step 8) to the respective text fields, and click **OK**.



Configuring Azure login provider:

contentACCESS supports log in using your Microsoft account. The first thing you need to do is to register an application (contentACCESS) under your Microsoft account. We used jack.bolton@tech-arrow.com personal account for the registration in our use case below.

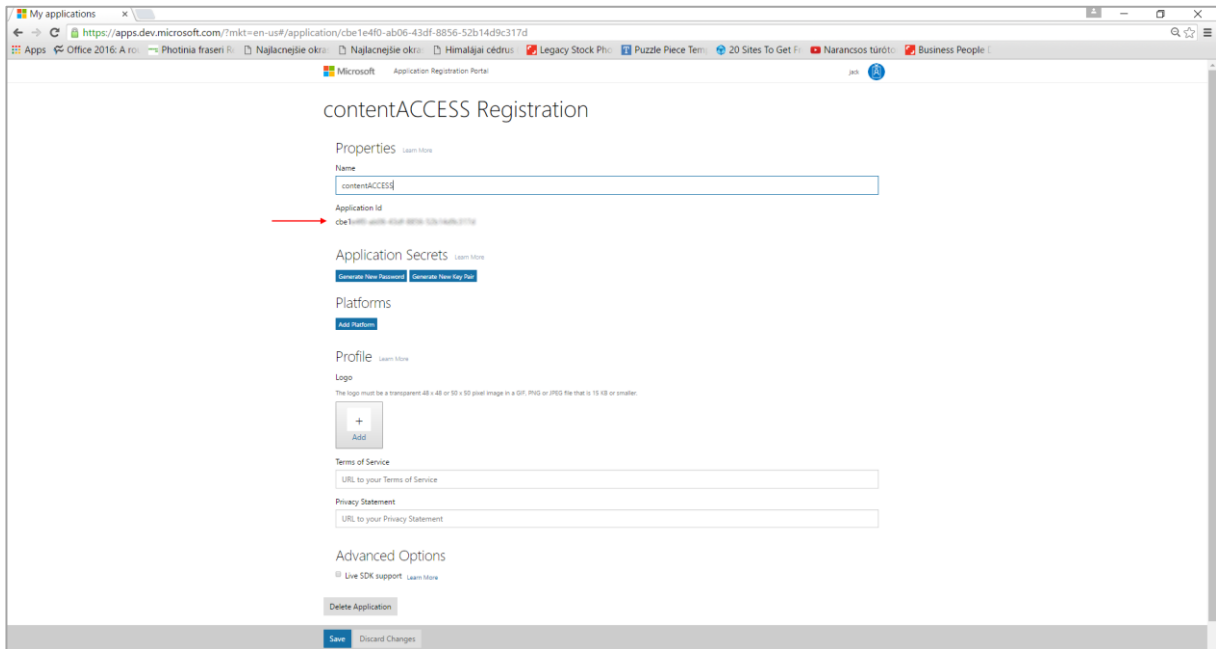
- 1) Go to the [Windows Live application management site](#) and sign in.
- 2) Click “Add an app” and name your application. The name that you specify should contain only alphanumeric characters and cannot be changed after registration is complete.



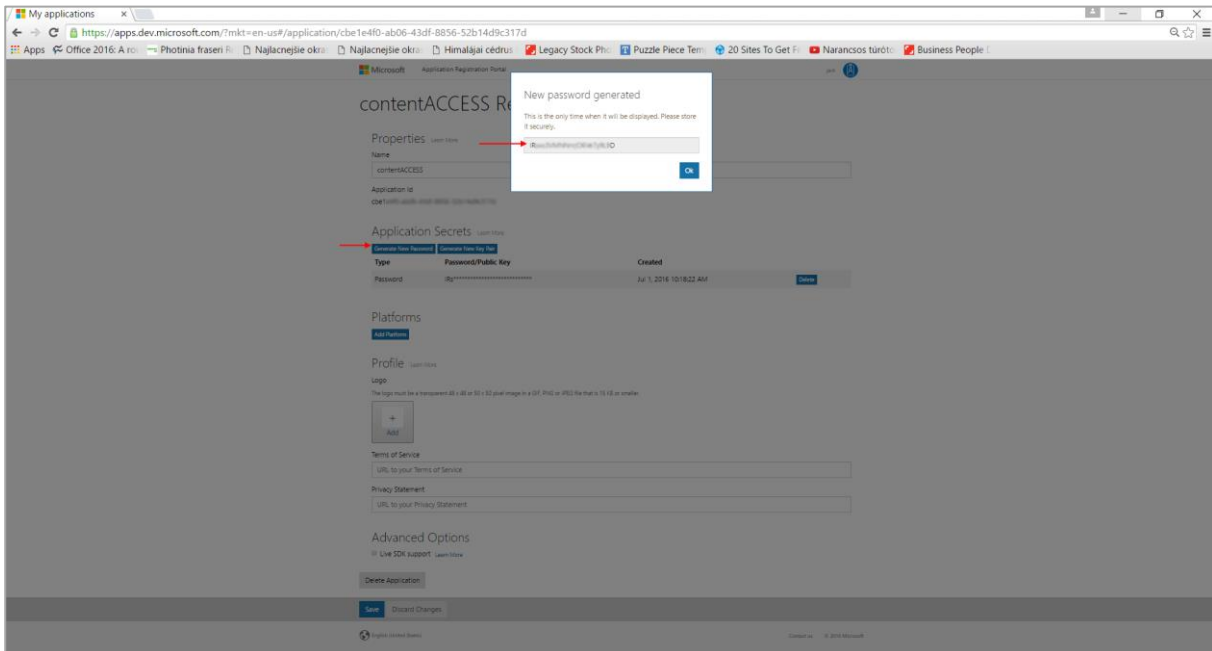
New Application Registration

Name

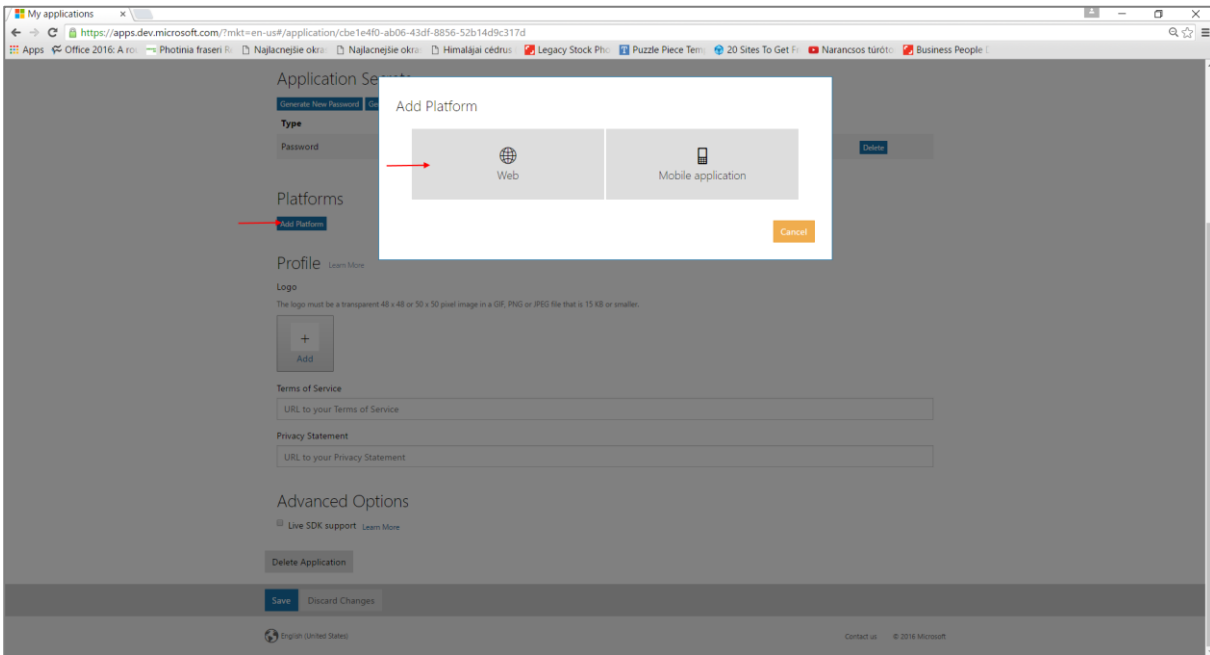
3) The **Application ID** will be later used as the **Client ID** in your application (in the Login provider's window of contentACCESS Central Administration).



4) Click option **Generate New Password**. This will be the **ClientSecret** in your application. You should record this key, but we recommend that you do not store it in the same location as its corresponding client ID:



5) Choose your application platform: Click **“Add platform”** and choose **“Web”**.

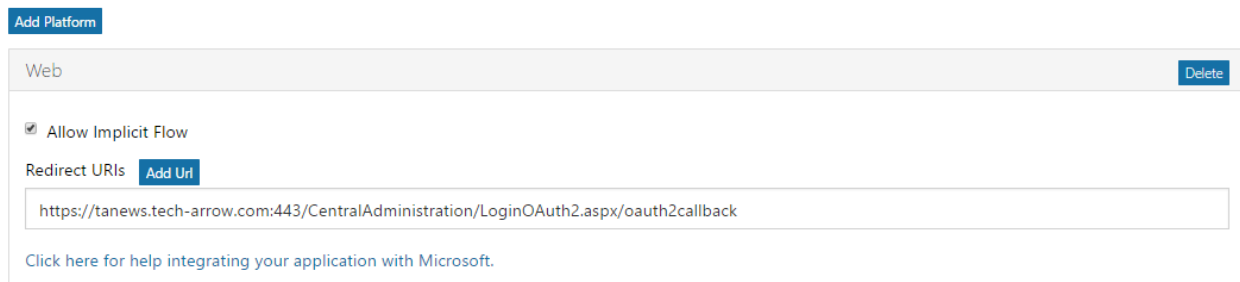


6) Now you can specify the redirect URIs – (more with clicking on the **Add Uri** button)
Use the URL displayed in the Login provider’s window of the contentACCESS Central Administration.

Sample: [https://\[contentACCESS Server:Port Number\]/CentralAdministration/LoginOAuth2.aspx/oauth2callback](https://[contentACCESS Server:Port Number]/CentralAdministration/LoginOAuth2.aspx/oauth2callback)

Important: Microsoft OAuth requires to use secure protocol – HTTPS – for the contentACCESS Central Administration URL.

Platforms



7) Upload your application logo, add terms of services and Privacy Statement. If you want to use the personal accounts too, you need to check the Live SDK support. Save your changes.



Profile [Learn More](#)

Logo
The logo must be a transparent 48 x 48 or 50 x 50 pixel image in a GIF, PNG or JPEG file that is 15 KB or smaller.

+
Add

Terms of Service

Privacy Statement

Advanced Options

Live SDK support [Learn More](#)

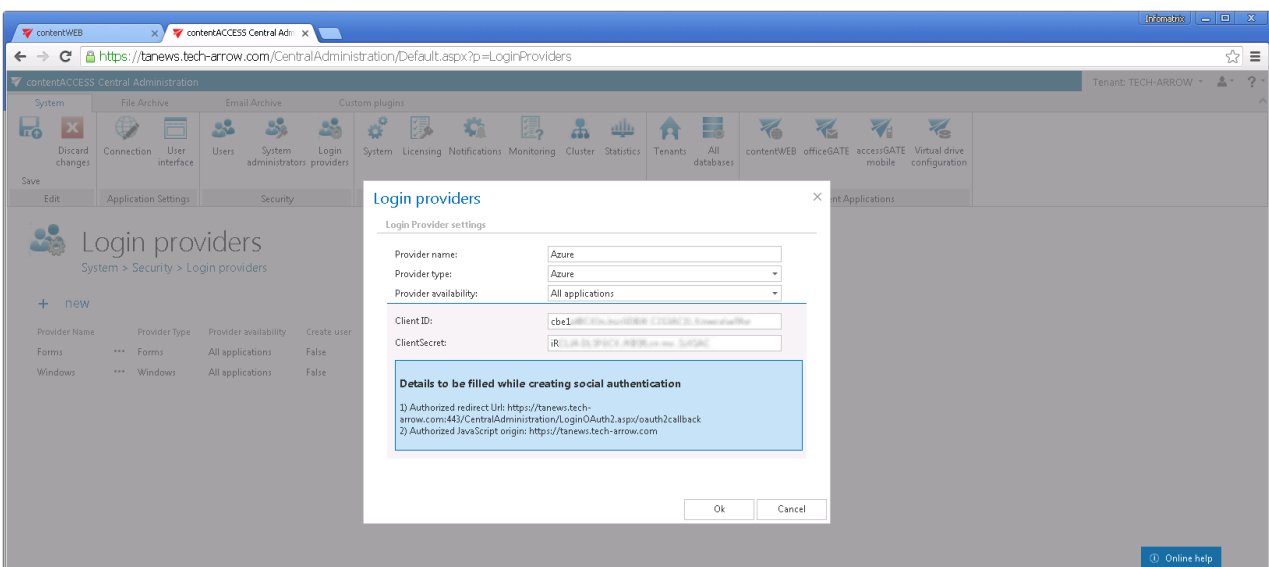
Delete Application

Save
Discard Changes
There are unsaved changes.

English (United States)
[Contact us](#) © 2016 Microsoft

Now configure the Azure login provider in the contentACCESS Central Administration.

- Open the **Login providers** page (System → Security → Login providers) and click **+new**. Name your provider, select the „Azure“ provider type and specify the applications that will use the Azure login (All applications/contentACCESS only/contentWEB only/Client applications only). Enter the Client ID and ClientSecret from steps 3) and 4) above and click „OK“.





With this step, this new login provider configuration has been enabled in contentACCESS. A user can use the configured login provider if this login type is associated with him. In the following subchapter we will learn how to associate a login type with a user.

Associating an enabled provider with a user login:

It depends on the provider type if it supports multiple configurations or not. You can create only one **Windows** and **Forms** login provider configuration for a user login, but can create multiple e.g. for **Azure**.

Once the desired provider is enabled and configured, you have to create a new user login to the user, who will use the provider. Navigate to **System** → **Security** → **Users** button on the ribbon. Click on it, and the **Users** page will open. Select the desired user and double click on it.

The **User details** page will open. Click on **+new** under **User details** section.

User details
System > Security > Users > User details

User details

Display name: Administrator
Is system admin: Yes

Security information

User name	Role name	Flags	Description
Administrator ***	System administrator	Manual	Administrator has System administrator rights on System (#)
Administrator ***	Tenant administrator	Manual	Administrator has Tenant administrator rights on Tenant TECH-ARROW

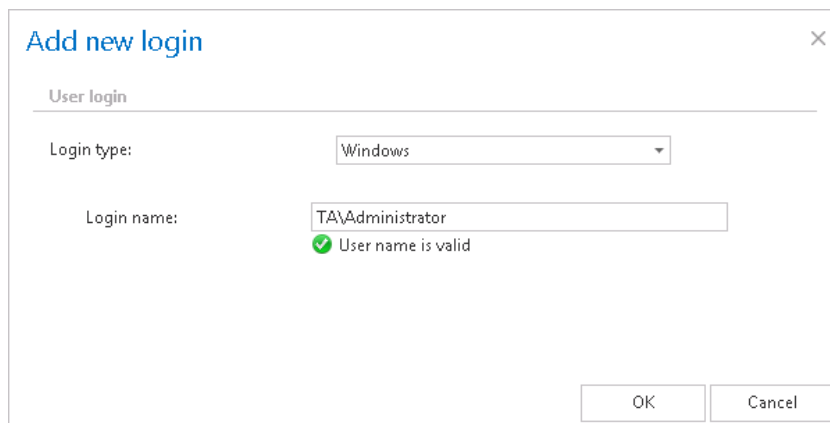
User logins

+ new

Login Type	Login Name	External Id
Forms	system	

[Go back](#)

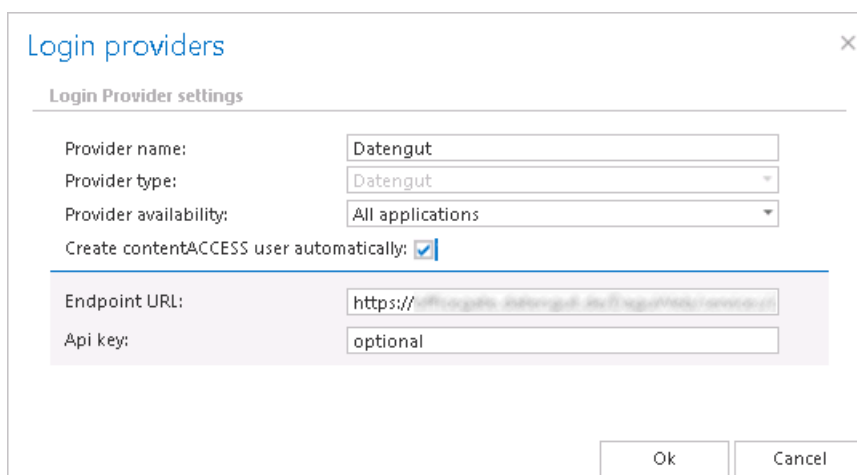
In the **Add new login** dialog select the desired provider configuration from the **Login type:** dropdown list, fill in the required credentials and click **OK**.



The external provider gets available in the **login window of the selected applications**.

contentACCESS users in third party systems

Datengut Baueakte and Perceptive DMS can be interconnected with officeGATE, which is an MS Outlook add-in used for collaborating on documents residing in different data management systems (DMS). officeGATE is a client application of contentACCESS, and it requires a contentACCESS user to sign in to the particular data management system. To simplify this login process into these third party systems (DMS like Datengut, Perceptive), it is possible to automatically create a contentACCESS user from the particular provider's configuration dialog, in contentACCESS Central Administration. This ensures single sign on into the particular DMS providers in officeGATE.



To achieve this, check the **“Create contentACCESS user automatically”** checkbox (and fill the required credentials). When you are logging in to Datengut or Perceptive DMS in officeGATE with your personal account, the contentACCESS user will be created automatically at the moment of logging in.



If the “**Create contentACCESS user automatically**” function is not enabled in the provider’s configuration dialog, then the administrator is forced to create contentACCESS users manually. Automated user creation helps to save much time for the administrator, as he does not need to create contentACCESS users for each user of the third party application (**like Datengut or Perceptive**).



System

The **System** page (**System** → **Services** → **System**) consists of 7 configuration sections: **General settings**, **User search settings**, **Database settings**, **Proxy settings**, **External accessibility settings**, **Active directory integration settings** and **Cluster settings**. The first two sections are configured by the setup by default.

The screenshot displays the 'System' configuration page in the contentACCESS Central Administration interface. The page is organized into several sections:

- General settings:** Includes 'Is system configured:' (checked) and 'Plugins directory:' (C:\Program Files\TECH-ARROW\contentACCESS\GAT).
- User search settings:** Includes 'Disable user searching:' (unchecked).
- Database settings:** Shows database type (MSSQL), server name (TANEWS), database (CONTENTACCESSDB), schema (dbo), and user (sa).
- Proxy settings:** Offers options to 'Do not use proxy', 'Use system default proxy settings' (selected), or 'Use explicit proxy server settings'.
- External accessibility settings:** Includes 'Retrieve server FQDN:' with a dropdown set to 'https', a text field for the URL, and a port dropdown set to '443'.
- Active directory integration settings:** Includes 'LDAP Server name:', 'Authentication type:' (Secure), 'Use explicit credentials' (checked), 'User name:', 'Password:', and 'Confirm password:'.
- Cluster settings:** Includes various time intervals (Node update interval, Node auto logoff time, Events retention time, Events distribution interval, Task auto disable time) and other parameters like 'Stop task after ping failures (count)', 'Node selection strategy', 'Default node role', and 'Enabled by default' (checked).

▪ General settings

If the 1st checkbox is checked it means that the system is configured, thus connection to SQL Server database is well configured and the plugins directory is pointing to a correct folder. Until this checkbox is not checked, the contentACCESS will run in a so called “zombie” mode.

Plugins directory textbox contains the path where the processing plugins are stored on the server.

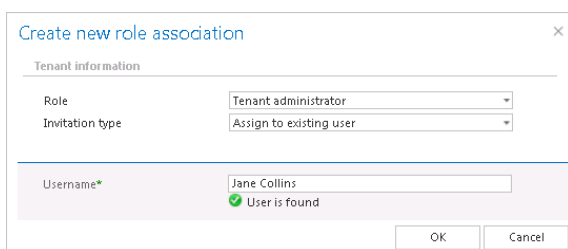
▪ User search settings

By default this option is turned off. The feature is used to disable / enable user searching when assigning

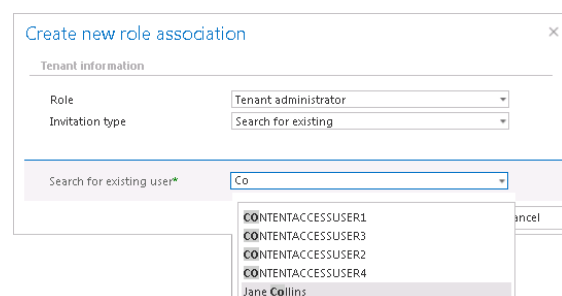
- system administrator rights,
- tenant administrator rights,
- File Archive access rights and /or
- access rights to a certain mailbox address

for a contentACCESS user **already existing** in contentACCESS.

If the option is **turned off**, all the existing contentACCESS users are listed in the respective dialog when assigning the access rights (like on Screenshot B below). If the option is turned on, then the rights can be granted only in case if the correct contentACCESS **User name** is specified in the dialog (like on Screenshot A below). This configuration option is used if you have contentACCESS in a hosted environment and you want to hide the users of one customer from the users of other customer.



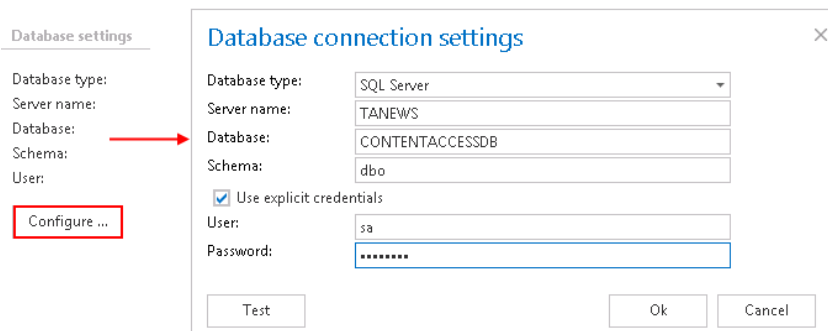
Screenshot A: Granting tenant administrator rights for Jane Collins if user searching is **disabled**



Screenshot B: Granting tenant administrator rights for Jane Collins if user searching is **enabled**

▪ Database settings

Under **Database settings** the system database configurations can be found, which are filled in by the setup by default. If you need to edit these settings (not recommended), click on the **Configure** button and fill the fields in the **Database connection settings** window:



By default contentACCESS is connected to the database with the credentials of the user, under whom contentACCESS is running. If you want to use SQL credentials which differ from these credentials data, then check checkbox **Use explicit credentials** and enter the **User** and **Password** that you want to use for connecting to database. You can also run a test connection with the **Test** button in the left corner of the window.

▪ Proxy settings

In this section the user can configure (or change already configured) URL and user credentials to the proxy server. The licensing component will use this proxy in order to reach the licensing server. The user has multiple options. He can:

- **Use default proxy settings** – based on the Proxy settings on the contentACCESS server machine (**Control panel** → **Internet options** → **Connection tab** → **LAN settings** → **Proxy server** section) or
- **Use explicit proxy server settings** (explicit proxy server URL and user)
- **“Do not use proxy”** option is used to disable proxy usage.

▪ External accessibility settings

Under **External accessibility settings**: enter the externally accessible, fully qualified domain name for the proxy server into the Server FQDN textbox (in case the proxy is not installed, then the domain name of contentACCESS server need to be entered here). The proxy server ensures the communication between the user and the contentACCESS, and forwards user requests to the contentACCESS server. These external accessibility settings are used by the shortcut links in the Email Archive system. **If you have contentACCESS Email Archive and/or accessGATE Mobile, then this setting is mandatory. In all other cases this setting is also highly recommended.**



Important: If the contentACCESS Server ID is changed, then the HTML shortcuts pointing to the archived mailbox items will not work. The solution is to update the contentACCESS Server ID in the Outlook forms, too. For more information refer to the [Outlook form installation manual](#).

▪ Active directory integration settings

Some contentACCESS functionalities [like contentWEB access for mailboxes or Virtual Drive] require LDAP connection. Enter the required data and the user/administrator credentials into the user name and password textboxes over which you would like to connect to the active directory. It is not necessary to fill in these fields in case that you use an online Exchange server.

▪ Cluster settings

contentACCESS supports clustering, which enables to run contentACCESS and its jobs on multiple nodes, and thus improve performance. To adjust default cluster settings, scroll down on the **System** page. At the bottom of page, the following can be adjusted:

Node update interval (sec): in time intervals, which is set here (in our case in every 30 seconds) each node will “ping” the central database and will update his state in it.

Node auto logoff time (sec): if an input has not been received by a node during the time period set here, the node will automatically switch to offline.

Events retention time (sec): events (i.e. commands to run a job, added/changed/removed job configurations, changes in already set schedulers etc.) that are shared and distributed between nodes will be stored in the database during this retention time.

Events distribution interval (sec): events to be distributed between nodes are written into the system database. These events are periodically checked by each node in time periods, which is set here.

Task auto disable time (sec): if any failure occurred when running of a node (server shutdown, hardware problems etc.), the task(s) performed by this specific node (job running, retrieving contents etc.) will be automatically disabled within the time set here.



Stop task after ping failures (count): the value which is set here will determine, after how many ping failures will be the task stopped. After the ping failure count reaches this value, all the tasks running on a node will be stopped.

Node selection strategy: the administrator can select here, how the nodes will be automatically selected for processing. A node that is picked up for a task can be selected according to one of these strategies:


"First wins" strategy – using this strategy the first running node will be picked for the task.

"Balanced" strategy – by this strategy type the CPU- and memory usage, and the number of running jobs will be considered before picking up the node for a task.

Default node role: the administrator can select here the default role type of a node added to the system. It is recommended to set here "Universal", i.e. when the node can be used both for processing and retrieving data. Later on, the role type of a node can be adjusted with navigating to **System** → **Services** → **Cluster** on the Central Administration ribbon, in the nodes' grid, from the nodes' context menu.

Enabled by default: by default all nodes are enabled (the checkbox is checked), i.e. if contentACCESS service starts up, the nodes start the processing (to run jobs, publish models etc.), too. In case the user will install contentACCESS components on next nodes, it is recommended to disable the nodes (uncheck this checkbox). The reason for this is, that a node must be fully configured before he picks up any job for processing. Enabled status of a node is marked with green color, disabled status is signed with yellow color in the nodes' grid.

Licensing

A new license can be activated on the **Licensing** page, which is reachable with navigating to **System** → **Services** →  **Licensing** button on the ribbon. The administrator can also update the telemetry job (further described in chapter [Statistics](#)) on this page. The license restrictions and the current usage may be checked in the corresponding sections of the **Licensing** page.

The page is divided into the following sections:

- **General information** – the actually used license details are shown here. Here you can also check the date when your license has been activated and the expiration date.
- **Customer information** – displays information about the owner of the license



- **Contact information** – the contact person responsible for software-related issues, usually a contact person between the TECH-ARROW and the customer
- **System limitations** – in this section you may see the plugins and storages available in the activated license, and the maximally allowed tenant and node count (currently used count is in brackets)

The contentACCESS license system allows to set limits for the File archive plugins and for the Email archive plugins. The user will be allowed to archive emails and files in a given range only, which is defined in the respective license. The currently archived item count and size is displayed in brackets.

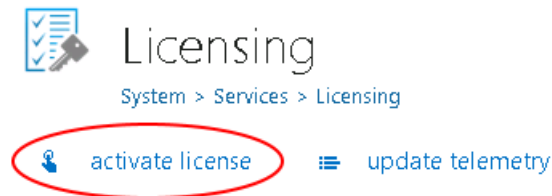
- **Email archive limitations** – the maximally allowed and currently archived mailbox count (both active and deactivated mailboxes, read more [here](#)), email(s) count and size is displayed here
- **File archive limitations** – the maximally allowed and currently archived root folder count, file(s) count and size is displayed here

The screenshot shows the 'Licensing' page in the contentACCESS Central Administration interface. The page is divided into several sections:

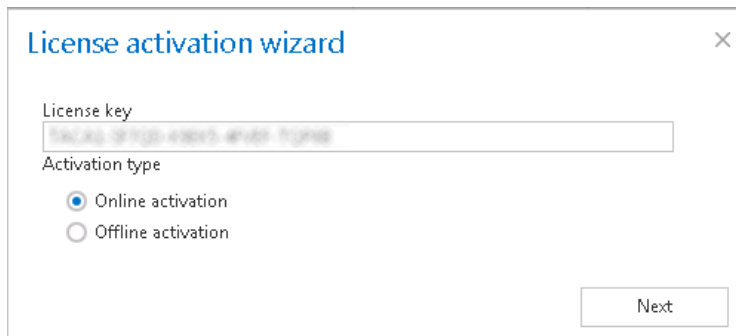
- General information:**
 - Key: TACA3-TEV6G-XAXEK-MPGCZ-MRSBK
 - Status: Ok
 - Activation: 6/24/2016
 - Expiration: 6/30/2050
- Customer information:**
 - Name: Customer
 - State: Germany
 - Street: Unter den Linden
 - Zip: 10117
- Contact information:**
 - Name: Helmut N.
 - Email: heimutn@domain.com
 - Phone: 123456
- System limitations:**
 - Plugins:** A list of available plugins including Mailbox move, Email archive, Email recovery, Email restore, Shortcut synchronization, File system recovery, Remote shortcutting, File system restore, File system archive, and PAM4Exchange connector.
 - Stores:** Datagut, Disk, EAST, HybridStore, Perceptive.
 - Tenant count:** 4 (2 used)
 - Node count:** unlimited (1 used)
- Email archive limitations:**
 - Active mailbox count: 20 (1 used)
 - Deactivated mailbox count: unlimited (0 used)
 - Email(s) size in archive: 2.2 TB (9.8 MB used)
 - Email(s) count in archive: 200000 (23 used)
- File archive limitations:**
 - Root count: 40 (0 used)
 - File(s) count: 200000 (0 used)
 - File(s) size: 2.2 TB (0 used)

How to activate your license key

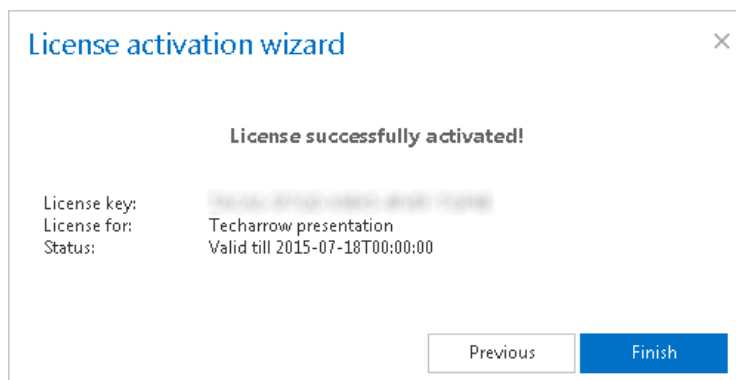
If you want to activate a new license click on option “**activate license**” below the breadcrumbs.



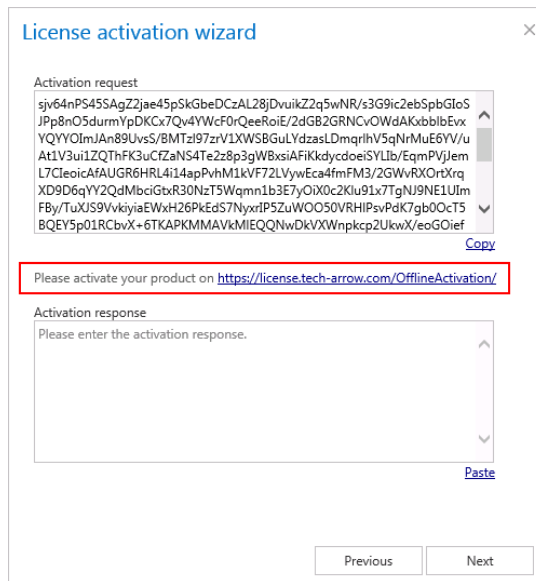
Insert your license key into the **License key** textbox of **License activation wizard** dialog and choose from 2 methods of license activation and follow the steps described below:



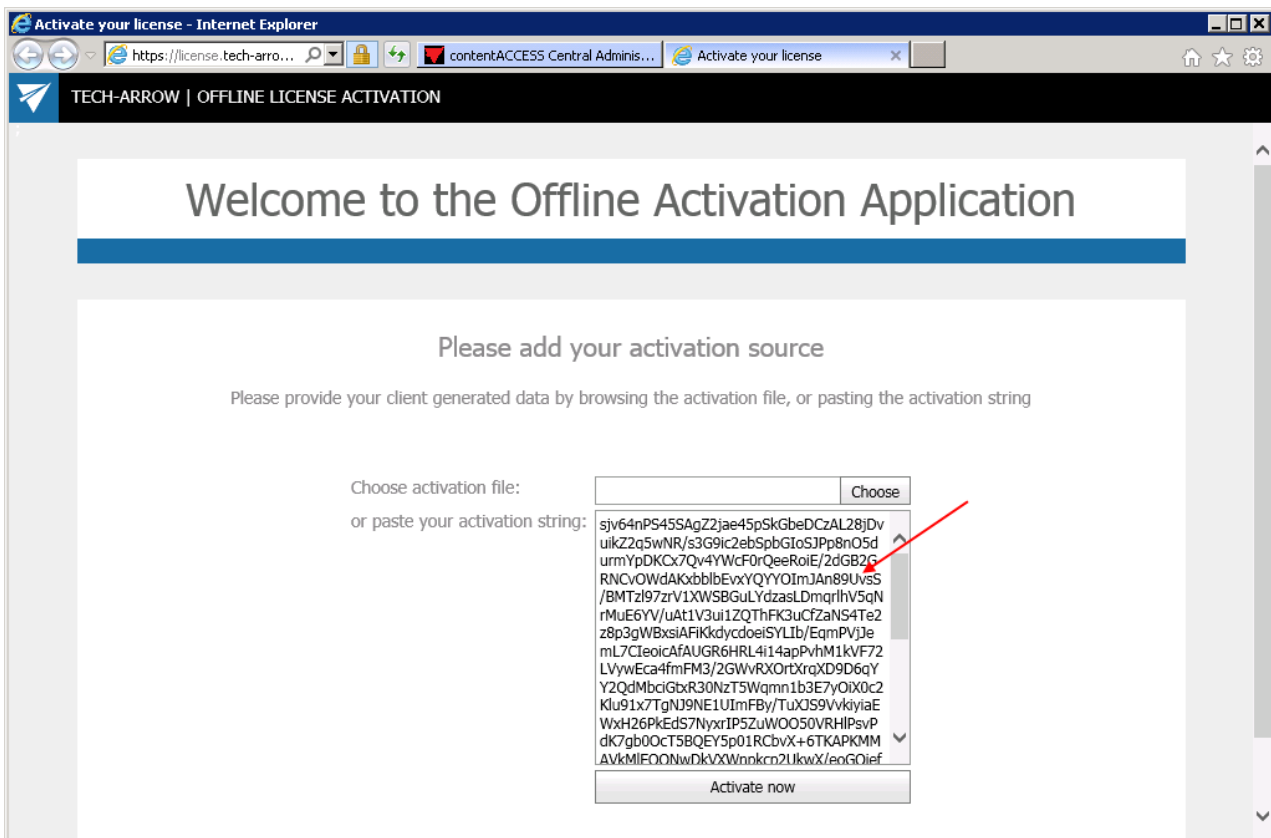
- 1) **Online activation** (requires internet access on the contentACCESS server) – click **Next** → **Finish** and your license will be activated automatically.



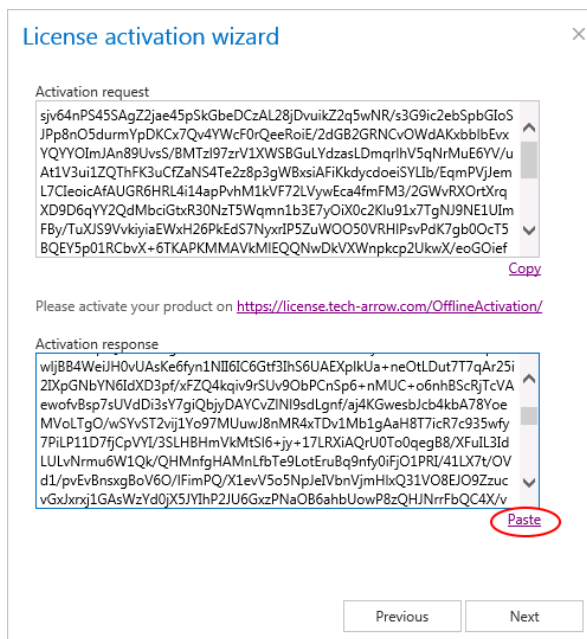
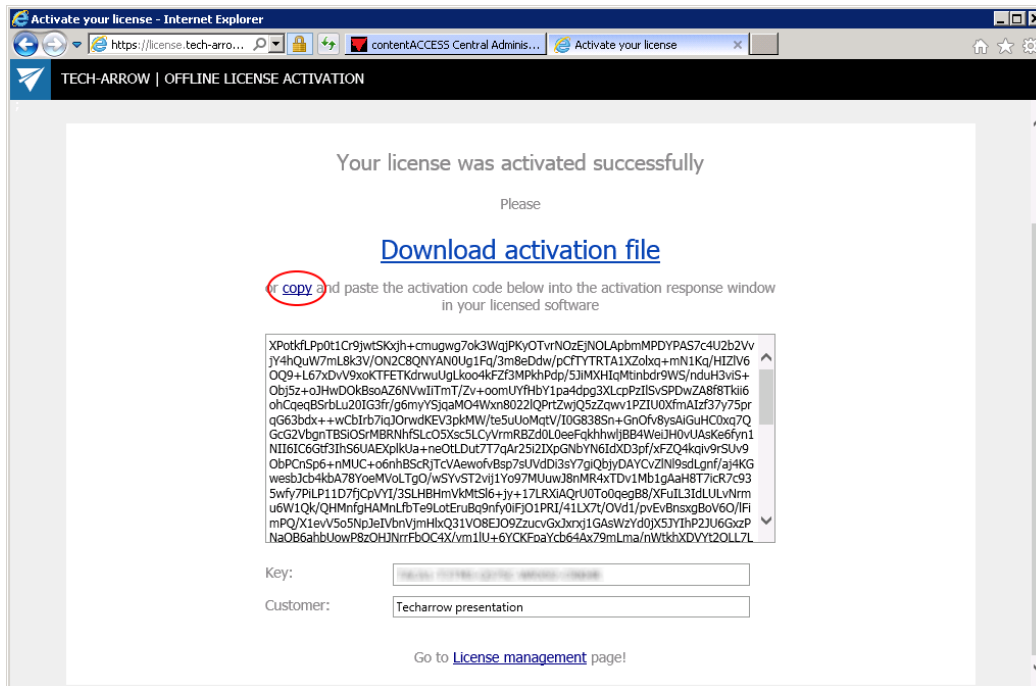
- 2) **Offline activation** (doesn't require internet access on the contentACCESS server)
 - a) Open the offline license activation page of contentACCESS using the link in the dialog:



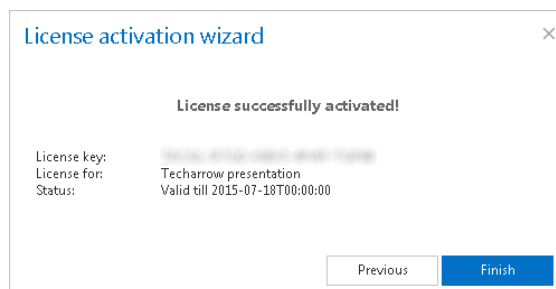
- b) Copy&paste the **Activation request** from the above dialog to the appropriate field and click **“Activate now”** to generate an activation response.



- c) Copy&paste the activation response from the web page (1st picture below) to the license activation dialog (2nd screenshot below).



d) Click **Next** and the license key will be successfully activated.

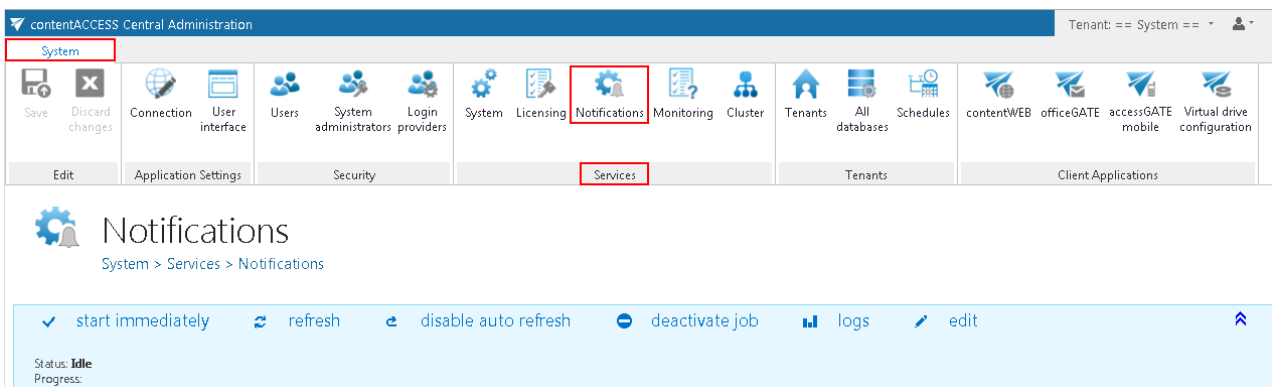


After successful license activation all **Allowed plugins, stores and limitations** within this license will be updated on the page.

Notifications

To increase efficiency of the troubleshooting process, contentACCESS uses notification plugins. These plugins will send notification emails to the user about the errors/warnings/misconfigurations or possible system or job failures in contentACCESS.


For Notification settings navigate to **System → Services →  Notifications** button.



In the status bar of notifications there are 5 control buttons:

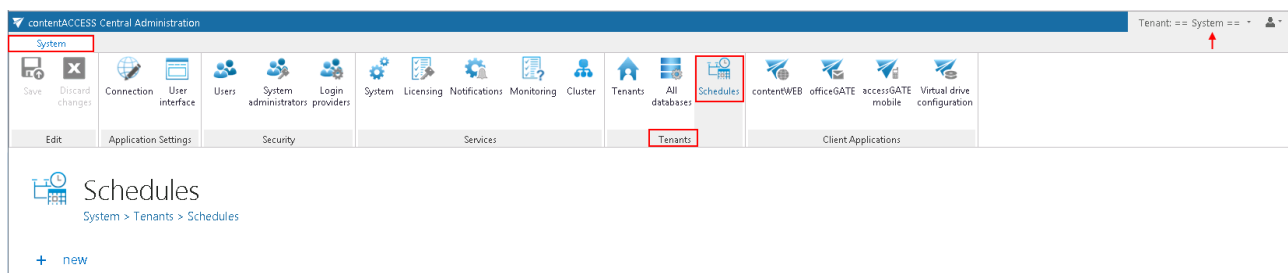
- With the “start immediately/stop” button it is possible to manually start/stop sending of notification emails;
- “refresh” control button serves to reload (manually refresh) the current state of notification plugin;
- “enable auto refresh”/“disable auto refresh”: serves for activating/deactivating the auto refresh of notification plugin status information; if enabled, then the current state will be refreshed in every 5 seconds;
- “deactivate job/activate job” button is used to deactivate/activate the job if it should not run; a deactivated job will not be started automatically, nor can be started manually.
- “logs”: in case that you want to check the notifications plugin events, or if any problem occurred during the sending of notifications emails, click on this control button and you will be redirected on the correspondent monitoring page, where the last run of the plugin will be pre-selected, and the corresponding run events will be displayed.



- “edit” control button is used to change the name of the notification job and to specify the node where the job should run;
- With the arrows mark () at the right side of the status bar the user may collapse or expand the progress information about the job’s running. The status bar’s last state is always stored, and the last state will be opened by navigating to the page again.

Under the status bar, in the particular sections can be configured, which Exchange provider will be used to send notification emails, who will be the real sender, or it is also possible to configure to send emails on behalf of somebody else. The condition for that is to have on behalf permissions on the mailbox of this second user.

- **Scheduling settings:** under scheduling settings it is possible to choose an already existing notification scheduler from the list, or to create a new one. Notification emails will be sent at time, which is set here. New notification schedulers can be also created (or edited) by selecting the “system” tenant in the right upper menu of the Central Administration user interface, and navigating to **System** → **Tenants** → **Schedules** button on the ribbon (refer to screenshot below).



- **EWS settings:** set here the type and version of the Exchange provider which will send the notification emails. Insert the EWS URL (received from the Exchange provider).

Keep connection alive: If it is turned on, then the connection between contentACCESS and the Exchange server is cached, which increases the performance. If the Exchange is load balanced, some requests can land on another Exchange which causes errors in contentACCESS. In these cases unchecking the keep alive option will destroy the connection after each request and will rebuild it on the next request.

- If you are communicating with **one Exchange server:** **turn it on** to increase the performance
- If you have a **load balanced Exchange environment** and there are **communication problems** with the Exchange: it is recommended to **turn it off**



Finally enter the **User name** (email address) and **password** of the user who will be the sender of the notification emails. Click on **Send test email** button if you need to check if the notification emails are working properly.

EWS settings

Exchange server type:	<input type="text" value="Exchange Online (O365)"/>
Exchange server interface version:	<input type="text" value="Exchange 2013"/>
EWS Uri:	<input type="text" value="https://outlook.office365.com/EWS/Exchange.asmx"/>
Keep connection alive:	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Use explicit credentials	
User name:	<input type="text" value="edit.csoka@tech-arrow.com"/>
Password:	<input type="text"/>
Confirm password:	<input type="text"/>
<input type="button" value="Test"/>	
<input type="button" value="Send test email"/>	

- **Notification settings:** it is also a possible to send notification emails to certain administrator addresses on behalf of somebody else. The condition for that is to have on behalf permissions on the mailbox of this second user. If you want to use this option, insert the email address of this on-behalf user into the “From address” textbox. Further add the recipients’ email address into the second text box. You can also send a test email via the “Send test email” button to check, if everything was set well.

Notification settings

From address:	<input type="text" value="john.doe@example.com"/>
Administrator addresses:	<input type="text" value="john.doe@example.com,peter.white@example.com,..."/>
<input type="button" value="Send test email"/>	

- **Resource settings:** under worker thread count you can set the count of simultaneously sent notifications:

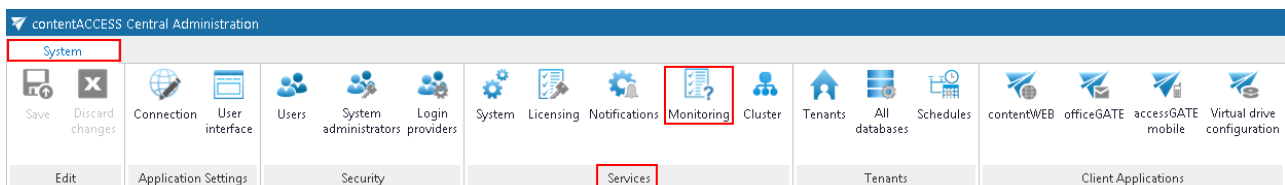
Resource settings

Worker thread count:	<input type="text" value="2"/>
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Monitoring – how to find out possible misconfigurations / reasons of potential system/job failures

Navigate to **System** → **Services** → **Monitoring** button.



Monitoring

System > Services > Monitoring

The monitoring feature enables to check the currently running or in the past run system or job related events very easily. The user can check here all desired system events such as system updates, shutdowns, startups, system component updates, or possible system errors etc. In monitoring feature, the user also has the chance to check all possible failure details that might happen during the running of the jobs, so it makes the troubleshooting easier.

If you first open monitoring, you can see the following basic parts on the interface: **Runs** of the jobs or system on the left side (**red** frame); **system and job events** on the right side (**green** frame). With clicking on the **Refresh** button (**purple** arrow) you can also check the real-time running jobs. With this button it is possible to reload the current runs/event from the database. With a single click on the **collapse all/expand all** buttons (indicated with **blue** arrows) you can expand or collapse all sessions for all jobs. It is also enabled to list among the events at the bottom of the monitoring page (**orange** frame).



Filteration

Type: (All types) Job: (All jobs) Start Date: End Date: Event types: (All events) Export Settings

Runs				Events: System events Or Job events			
#	Start date	End date		Date	Title	Description	Job
Jobs [system]							
Jobs: Mailbox Provisioning Job				7/31/2015 12:39 PM	contentACCESS user skipped from permission sync	User 'MA' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
Jobs: (57)				7/31/2015 12:39 PM	contentACCESS user skipped from permission sync	User 'new user' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
Jobs: (59)				7/31/2015 12:39 PM	contentACCESS user skipped from permission sync	User 'sa' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
Jobs: (87) job				7/31/2015 12:39 PM	contentACCESS user skipped from permission sync	User 'administrator' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
Jobs: (64)				7/31/2015 12:39 PM	Updating existing group	Updating existing group 'GroupID: 25, TenantID: 12, Name: Job, DistinguishedName: CN=Job,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR6A892.DC=prod,DC=outlook,DC=com' with parent 'V' in the database.	Mailbox Provisioning Job
Jobs: (66)				7/31/2015 12:39 PM	Updating existing group	Updating existing group 'GroupID: 24, TenantID: 12, Name: Adobe, DistinguishedName: CN=Adobe,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR6A892.DC=prod,DC=outlook,DC=com' with parent 'V' in the database.	Mailbox Provisioning Job
Jobs: (68)				7/31/2015 12:39 PM	Updating existing group	Updating existing group 'GroupID: 4, TenantID: 12, Name: build_notification, DistinguishedName: CN=build_notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR6A892.DC=prod,DC=outlook,DC=com' with parent 'V' in the database.	Mailbox Provisioning Job
Jobs: (70)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '6 (@Andreas.werke@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: File archive job				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '25 (@support@TECHARROW.onmicrosoft.com)' in DB.	Mailbox Provisioning Job
Jobs: File restore job				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '22 (@peter.fitor@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (76)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '21 (@peter.fitor@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (79)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (80)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (81)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (82)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (84)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (85)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (86)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: (89)				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job
Jobs: TA_Ema all archive job				7/31/2015 12:39 PM	Updating mailbox	Updating mailbox: '20 (@solya.veghva@tech-arrow.com)' in DB.	Mailbox Provisioning Job

Page 1 of 1 (27 items) Page 1 of 38 (894 items)

Sorting in monitoring: sorting option is enabled both in the **Runs** and **Events** tables. Click on the particular column name (Start date, End date by the runs, Date, Title, Description, Job by the events), and the items will be displayed in the reverse order.

Filteration

Type: (All types) Job: (All jobs) Start Date: End Date: Event types: (All events) Export Settings

Runs: Start date End date

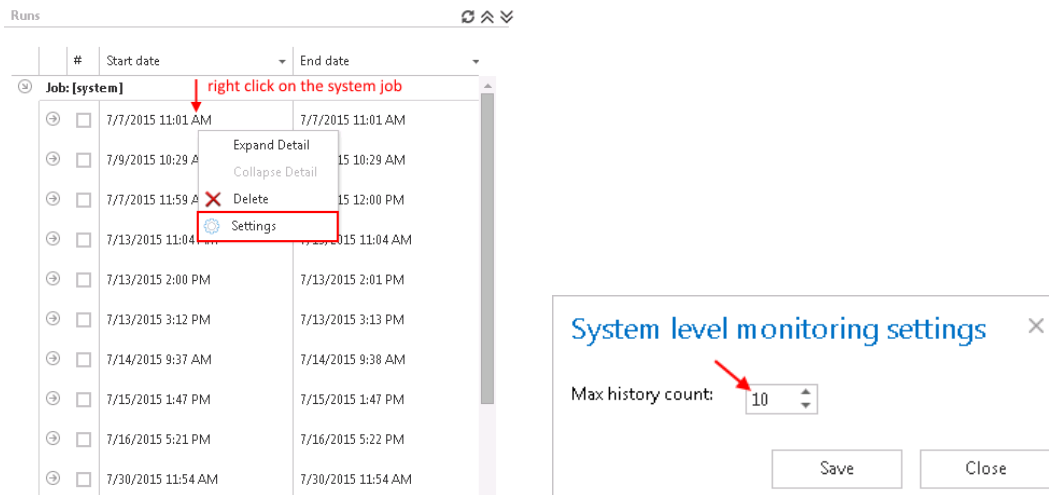
Events: Run in Mailbox Provisioning Job 7/2/2015 9:39:12 AM

Date Title Description Job

Setting of maximum history count of the runs: With this option it is possible to set, how many job runs the user would like to keep. If the value is set to 10 for example, and a job has run 20 times, then only the last 10 runs can be viewed, remaining 10 will be deleted and the user will not have an access to them. It is recommended to set a higher value here, if a job is running too often, or during the weekends, and the user needs to view the events retroactively.

This value is always inherited from the higher level. There are three levels altogether, where the history counter can be adjusted; the **system** is the highest level, the next is **tenant** level and the last one is the level of **jobs**.

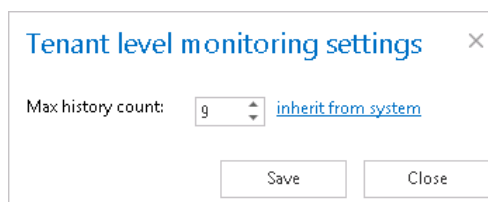
- **System level settings** are accessible with right mouse click on a system related job in the column of **Runs**; here click on **Settings**, and adjust these settings in the **System level monitoring setting** dialog.



- **Tenant level monitoring settings** are inherited from the system, i.e. if maximum history count is set on “10” on system level, then the same value will apply for the tenant level monitoring settings, too. Nevertheless it is possible to configure the tenant level settings independently from the system settings. Click on the **Settings** button and set the required value into the **Tenant level monitoring settings** dialog. If the tenant level settings are set independently, it can be still adjusted to the system settings with a click on the “inherit from system” option in the **Tenant level monitoring settings** dialog.

Monitoring

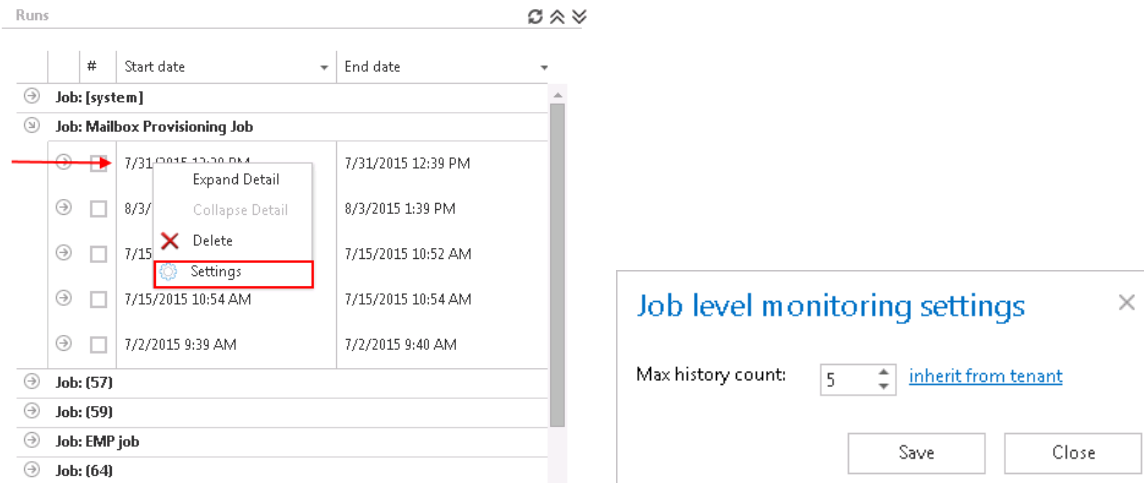
System > Services > Monitoring



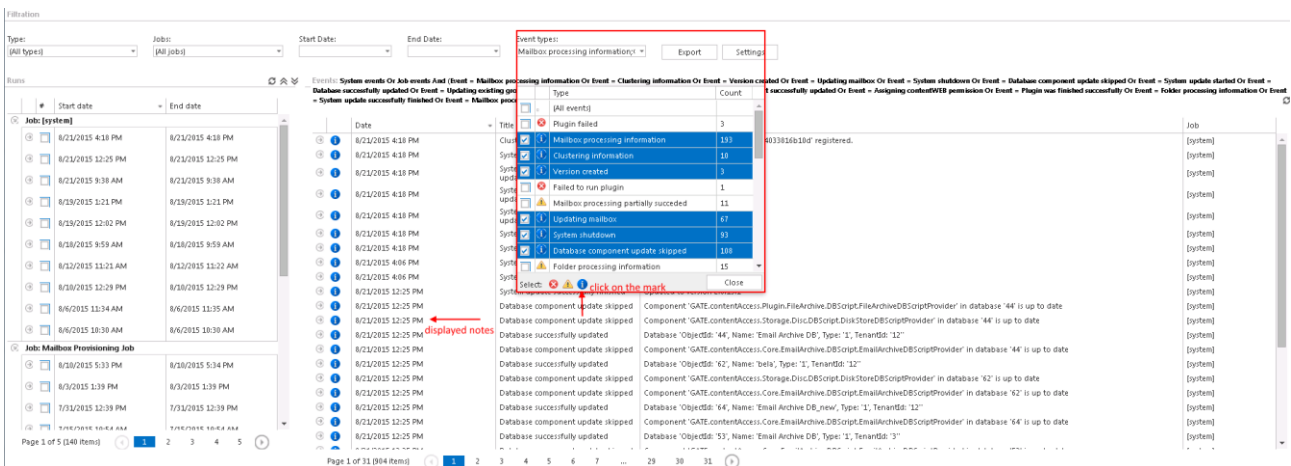
- **Job level monitoring settings** can be adjusted with clicking on the particular job running in the column of **Runs** and configuring these settings in the **Job level monitoring setting** dialog. These settings are inherited from the tenant by default. Nevertheless it is still possible to set another value with a right click on the particular job in the **Runs** column, select here **Settings** and set the



maximum history count in the dialog. This value can be adjusted to the default value inherited from tenant with clicking on the “inherit from tenant” option in the same dialog.



Filtration in monitoring: If the user would like to check details of a certain system/job running, then he can also filter among the jobs under **Filtration** → **Jobs:** dropdown list. If it is necessary to check the system/job events that run in a certain period of time, then it is possible to further filter among these items with setting the **Start date** and the **End date** under filtering options. Under **Event types** it is allowed to filter among event types occurred in the actually selected events. An event type filter is also available at the bottom of the Event types dropdown list. Using this filter it is possible to sort out all events which belong to one of the 3 event groups [1. error (❌), 2. warning (⚠️) or 3. note (📌)]. Click on the mark of the particular event group next to “Select”, and the selected events will be displayed. On screenshot below, we sorted out all the notes (with a click on “📌” mark).





Note: If the logged in user is a system administrator then he will be allowed to see the system related events, if he has tenant administrator rights, then he will be allowed to check the tenant related events using monitoring feature.

The **Export** function makes it easy to save the reviewed events into XML, CVS or HTML. The report contains all necessary information (date, job ID, Message, Details) which enable to have a look at the desired information, and also identify possible failures very quickly. This enables a very quick access to the system/job processing information, and also ensures a very quick troubleshooting in case of need.

Filtration

Type: (All types) Jobs: EBA's invoice restore Start Date: End Date: Event types: (All events) Export Settings

On the below displayed screenshot we have filtered out **Mailbox Provisioning Job** and **TA_Email Archive job** and set 1st of July 2015 as **Start date**, and 8th of July as **End date**. Among event types we have also set **All events**. This filter will find all the events related to these 2 jobs, which happened in this time interval.

Monitoring
System > Services > Monitoring

Filtration

Type: Job Jobs: provisioning Job;TA_Email archive job Start Date: 7/1/2015 12:00 AM End Date: 7/9/2015 12:00 AM Event types: (All events) Export

Runs

#	Start date	Job
1	7/2/2015 9:39 AM	Job: Mailbox Provisioning Job
2	7/2/2015 9:22 AM	Job: TA_Email archive job
3	7/3/2015 10:56 AM	
4	7/3/2015 11:08 AM	
5	7/3/2015 11:15 AM	
6	7/3/2015 11:15 AM	
7	7/3/2015 11:19 AM	
8	7/7/2015 11:16 AM	
9	7/7/2015 12:16 PM	

Jobs:

- (All jobs)
- Mailbox Provisioning Job
- TA_Email archive job
- TA_EA 2
- FA job
- EMP job
- File content extractor
- Email archive new job
- restore
- New email archive job
- Email Archive

Events: Job is Mailbox Provisioning Job Or Job is TA_Email archive job And (Date >= 7/1/2015 12:00:00 AM And Date <= 7/9/2015 12:00:00 AM)

Date	Title	Description
7/7/2015 12:17 PM	Plugin was finished successfully	Plugin.EmailArchive
7/7/2015 12:17 PM	Mailbox processing information	Processing was finished
7/7/2015 12:17 PM	Mailbox processing information	Mailbox processing finished
7/7/2015 12:17 PM	Mailbox processing succeeded	Plugin.EmailArchive
7/7/2015 12:16 PM	Mailbox processing information	Processing was started. Number of mailboxes: 1.
7/7/2015 11:18 AM	Plugin was finished successfully	Plugin.EmailArchive
7/7/2015 11:18 AM	Mailbox processing information	Mailbox processing finished
7/7/2015 11:18 AM	Mailbox processing information	Processing was finished
7/7/2015 11:18 AM	Mailbox processing succeeded	Plugin.EmailArchive
7/7/2015 11:16 AM	Mailbox processing information	Processing was started. Number of mailboxes: 1.
7/3/2015 11:19 AM	Plugin was finished successfully	Plugin.EmailArchive
7/3/2015 11:19 AM	Mailbox processing information	Processing was finished
7/3/2015 11:19 AM	Mailbox processing information	Mailbox processing finished
7/3/2015 11:19 AM	Mailbox processing succeeded	Plugin.EmailArchive
7/3/2015 11:19 AM	Mailbox processing information	Processing was started. Number of mailboxes: 1.

Under **Runs** section click on the arrow mark next to the job, and the last run times will be opened. In the table of **Events** at the right side of the screenshot you can see all the events related to these 2 jobs, in time period 1st of July – 8th of July. With a click on the certain run of the job instance (for

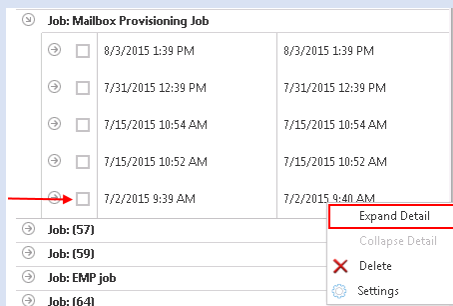


example with a click on the Mailbox Provisioning job that run at 7/2/2015 at 9:39-9:40) you can open further details about this running. In our case we can see that Mailbox provisioning job has processed in this time 98 mailboxes, of which 25 mailboxes added, 71 mailboxes skipped, 2 mailboxes updated etc. (red arrows).

If you check the checkbox next to this job running, then the right hand table will display all events, all event types related to this job running at 9:39-9:40, on 2nd of July.

#	Start date	End date	Date	Title	Description	Job
Job: Mailbox Provisioning Job click here to open further details						
<input checked="" type="checkbox"/>	7/2/2015 9:39 AM	7/2/2015 9:40 AM	7/2/2015 9:40 AM	Plugin was finished successfully	Plugin:MailboxProvisioning	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'sa' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'new user' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'MA' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'administrator' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Updating mailbox	Updating mailbox '8 (@bal@tech-arrow.com)' in DB.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding mailbox to group	Adding mailbox '8 (@bal@tech-arrow.com)' to group '1'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Mailbox permission change	Mailbox permission changed for '26 (@vladimir.werskov@tech-arrow.com)'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding new mailbox	Adding new mailbox '26 (@vladimir.werskov@tech-arrow.com)' to DB.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Mailbox permission change	Mailbox permission changed for '25 (@hr@TECHARROW.onmicrosoft.com)'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding new mailbox	Adding new mailbox '25 (@hr@TECHARROW.onmicrosoft.com)' to DB.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Mailbox permission change	Mailbox permission changed for '14 (@ruppon@TECHARROW.onmicrosoft.com)'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding new mailbox	Adding new mailbox '24 (@support@TECHARROW.onmicrosoft.com)' to DB.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Mailbox permission change	Mailbox permission changed for '23 (@sales@tech-arrow.com)'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding new mailbox	Adding new mailbox '23 (@sales@tech-arrow.com)' to DB.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Mailbox permission change	Mailbox permission changed for '22 (@peter.magdina@tech-arrow.com)'.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	Adding new mailbox	Adding new mailbox '22 (@peter.magdina@tech-arrow.com)' to DB.	Mailbox Provisioning Job

Note: The exact details of a job/system running can be opened/collapsed with a right click on the particular session and selecting **Expand Details/Collapse Details** from the context menu.

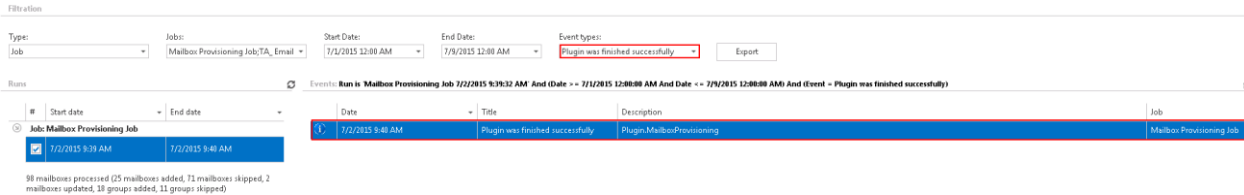


Note: With a right mouse click on a particular event and selecting **Expand Detail/Collapse Detail** from the context menu the user can open/close additional details related this selected event.

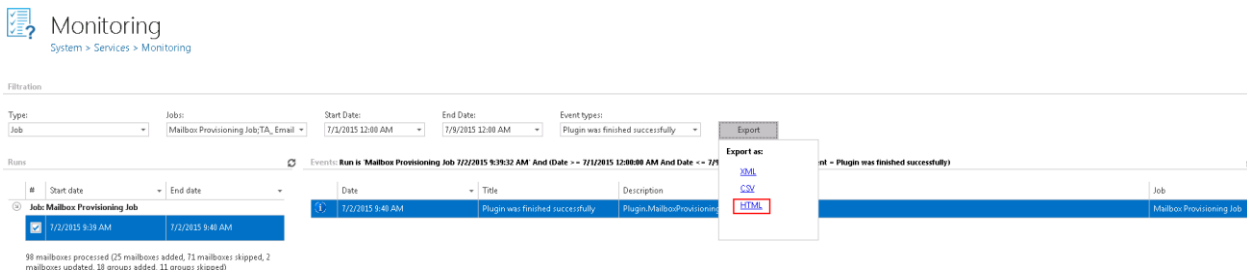
#	Start date	End date	Date	Title	Description	Job
Job: Mailbox Provisioning Job Expand Detail Collapse Detail						
<input checked="" type="checkbox"/>	7/2/2015 9:39 AM	7/2/2015 9:40 AM	7/2/2015 9:40 AM	Plugin was finished successfully	Plugin:MailboxProvisioning	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'sa' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'new user' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'MA' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job
<input type="checkbox"/>	7/2/2015 9:40 AM		7/2/2015 9:40 AM	contentACCESS user skipped from permission sync	User 'administrator' permissions can't be set because the user SID could not be resolved.	Mailbox Provisioning Job



Now, if you want to visualize only **Plugin was finished successfully** information even type, then set this filter in the **Event types** checkbox. This will result, that only this type of event will be displayed in the table of **Events**.



With the **Export** function save this report in one of the file types, for example in HTML:



The report will contain all necessary information that might be very useful for a user to identify any failure, or just check the last event(s) of this job at the time period that was filtered out.

ID	Code	Type	Title	Date	Job ID	Message	Details
Filter: Run is 'Mailbox Provisioning Job 7/2/2015 9:39:32 AM' And (Date >= 7/1/2015 12:00:00 AM And Date <= 7/9/2015 12:00:00 AM) And (Event = Plugin was finished successfully)							
158	13103	Info	Plugin was finished successfully	7/2/2015 9:40:23 AM	56	Plugin.MailboxProvisioning	<d t="MonitoringStatDetails"> <s>98 mailboxes processed (25 mailboxes added, 71 mailboxes skipped, 2 mailboxes updated, 18 groups added, 11 groups skipped)</s> </d>

How to manually remove system/job runs and system/job related events from monitoring:

- **To delete system/job runs** right click on the particular system/job run in column **Runs** and select **Delete** from the context menu (Screenshot A).
- **To delete a particular event** right click on the particular event and select **Delete** from the context menu (Screenshot B)



Runs

#	Start date	End date
Job: [system]		
<input checked="" type="checkbox"/>	7/7/2015 11:01 AM	7/7/2015 11:01 AM
<input type="checkbox"/>	7/9/2015 10:29 AM	7/9/2015 10:29 AM
<input type="checkbox"/>	7/7/2015 12:00 PM	7/7/2015 12:00 PM
<input type="checkbox"/>	7/13/2015 11:04 AM	7/13/2015 11:04 AM
<input type="checkbox"/>	7/13/2015 2:00 PM	7/13/2015 2:01 PM
<input type="checkbox"/>	7/13/2015 3:12 PM	7/13/2015 3:13 PM
<input type="checkbox"/>	7/14/2015 9:37 AM	7/14/2015 9:38 AM
<input type="checkbox"/>	7/15/2015 1:47 PM	7/15/2015 1:47 PM
<input type="checkbox"/>	7/16/2015 5:21 PM	7/16/2015 5:22 PM
<input type="checkbox"/>	7/30/2015 11:54 AM	7/30/2015 11:54 AM

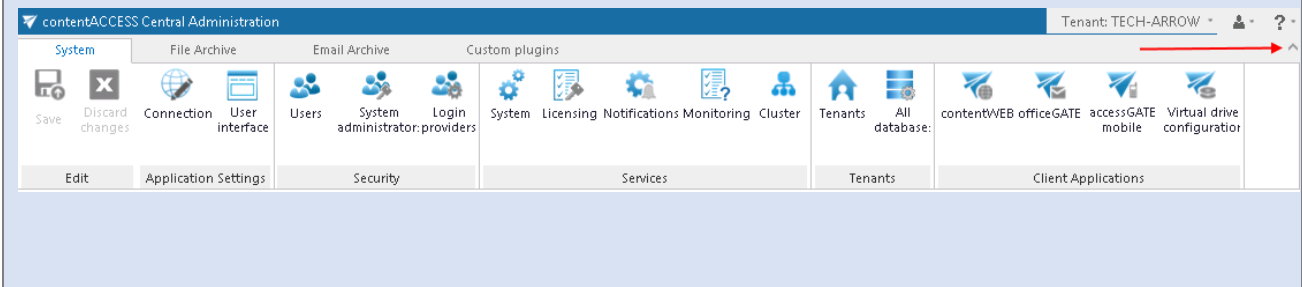
Screenshot A: Deleting system/job runs

Events: Run is 'system 7/7/2015 11:01:53 AM'

	Date	Title	Description
<input checked="" type="checkbox"/>	7/7/2015 11:01 AM	System update successfully finished	Updated to version 2.5.26.0
<input checked="" type="checkbox"/>	7/7/2015	System component successfully updated	FileSystem archive
<input checked="" type="checkbox"/>	7/7/2015	System component successfully updated	Email archive
<input checked="" type="checkbox"/>	7/7/2015 11:01 AM	System component successfully updated	System
<input checked="" type="checkbox"/>	7/7/2015 11:01 AM	System update started	Updating to version 2.5.26.0 ...

Screenshot B: Deleting system/job events

What to do if more space is needed on the monitoring page? If there are too many events and the user would like to have more space on the monitoring page, it's a good idea to hide the ribbon with clicking on the arrow sign at the right upper corner of the user interface, under the **About** menu.



Distributed environment in contentACCESS – Clusters

Why is it efficient to use clusters? A server cluster is a group of independent servers (nodes) working together as a single system to provide high availability of services for clients. When a failure occurs on one computer in a cluster, resources are redirected and the workload is redistributed to another computer (node) in the cluster. It can happen, that one processing job is currently running on a processing node, but a server failure occurs and the server will shut down. In this case a second, alternative node (either with “Job runner” or “Universal” role) can pick the task up to finish the archiving process. To achieve this, the running of this particular job should be allowed on any available node.

contentACCESS's cluster technology guard against the following types of failure:



- ✓ **System and hardware failures**, which affect hardware components such as CPUs, drives, memory, network adapters, and power supplies.
- ✓ **contentACCESS's application and service failures**, which affect the software, its applications and essential services.

Thanks to clustering in contentACCESS, the user can make the job processes scalable, and thus increase the performance. The user may decide how the nodes should be used, and how the work processes should be divided between them. The jobs can be run on a specific or any available node. It is also possible to install the full contentACCESS on one node and the contentACCESS server part on another nodes to ensure a better performance for job processing and for contentACCESS as a whole. It is also possible to use the nodes in a balanced mode; in this case the nodes are selected according to their Memory and CPU usage. The actually running jobs on the node will be considered as well.

There are 3 main node roles available in contentACCESS (can be adjusted from the context menu of the particular node).

- ✓ **Universal**: this type can be used for all operations performed in contentACCESS;
- ✓ **Model provider (retriever)** type can be used to publish models, i.e. this type is used to connect client applications with contentACCESS and to retrieve items through these client applications;
- ✓ **Job runner (processing)** type was developed to run jobs (plugin instances) in contentACCESS.

The user must decide, which role type he assigns to a particular node, how he divides work processes between the nodes, and how he makes the work processes more effective. A typical use case is, when a customer installs the contentACCESS server, Central Administration and contentWEB on one node, and contentACCESS server on a second node. Then he sets the first node to "Universal" and the second to "Job runner", and assigns File system archive jobs to the first node, and the Email archive jobs to the second node.

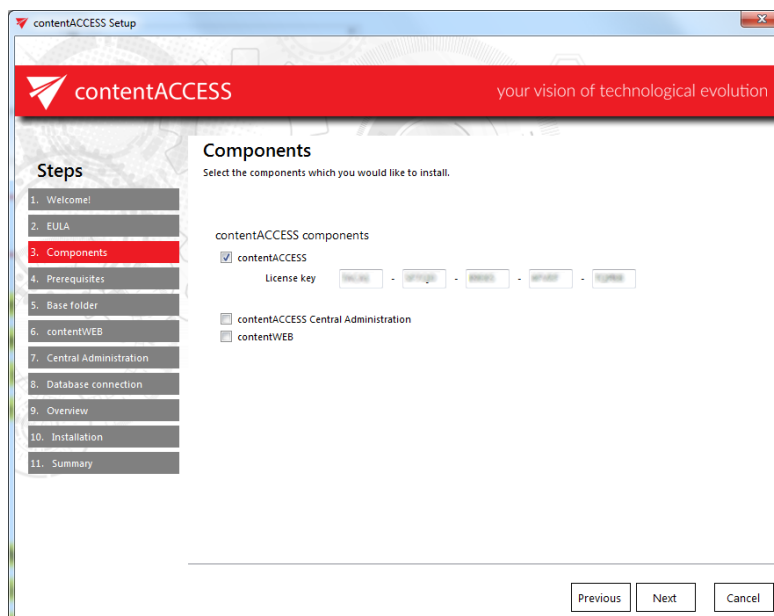
Now, let's assume, that contentACCESS is already installed on the first "main" node (TANEWS), where the file system archive jobs are running. Now our customer decided to buy TECH-ARROWS's Email archive, and he would like to run email archive jobs on a second node. To achieve this, he needs to install the contentACCESS server on a second node (e.g. TECHNB0002).



Before the user starts to install any contentACCESS component on a second node, it is always recommended to set the node to disabled (to prevent the new node from picking up new tasks before it is fully configured). We set now the default role type to “Job processing”, as we will use it to run the email archive jobs. For more information about these default cluster settings please refer to section [System](#), section “Cluster settings”.

Cluster settings	
Node update interval (sec):	30
Node auto logoff time (sec):	120
Events retention time (sec):	1800
Events distribution interval (sec):	60
Task auto disable time (sec):	30
Stop task after ping failures (count):	2
Node selection strategy:	First wins
Default node role:	Job runner (processing)
Enabled by default:	<input type="checkbox"/>

To install any contentACCESS component on a second node, start to run the contentACCESS setup package on the selected server (TECHNB0002). Follow the installation steps of the wizard. In the 3rd step of the installation process select the components that should be installed on this second node. As mentioned above, in this use case we select the contentACCESS server to install on this second node:



In the 9th step of the installation process the user is asked to set the system database connection. Enter the server name, where the system database is already installed (in our case it is installed on



our 1st node called “TANEWS”), enter the name of the already existing system database (in this case it is “CONTENTACCESSDB”; can be checked on the SQL server), type here the database user credentials and the database schema.

The screenshot shows the 'contentACCESS Setup' window. The 'Steps' list on the left includes: 1. Welcome!, 2. EULA, 3. Components, 4. Prerequisites, 5. Base folder, 6. contentWEB, 7. Central Administration, 8. Service settings, 9. Database connection (highlighted in red), 10. Overview, 11. Installation, and 12. Summary. The main area is titled 'Database connection' and contains the following fields and options:

- Radio buttons for 'Install new SQL Server 2012 Express' and 'Connect to existing SQL Server' (selected).
- Text field for 'Database server' with the value 'TANEWS' and a red 'Test' button to its right.
- Text field for 'Database name' with the value 'CONTENTACCESSDB'.
- Checkbox for 'Use Windows integrated authentication' (unchecked).
- Text field for 'User name' with the value 'sa'.
- Text field for 'Password' with masked characters '*****'.
- Text field for 'Schema' with the value 'dbo'.
- A red 'Test' button at the bottom right of the form area.
- Buttons for 'Previous', 'Next', and 'Cancel' at the bottom of the window.

Important!!! In the Database connection settings either a domain user must be specified (if Windows authentication is used), or an SQL user’s credentials must be added to connect to the database.

Finish the installation process of this second node. Now, let’s check the available nodes in the Central Administration.

Status pane of nodes, grid of nodes, available operation from the nodes’ context menu: Nodes where contentACCESS components are installed can be viewed with navigating to **System** tab → **Services** → **Cluster**, in the nodes’ grid below the status bar (displayed with **green** color on the below displayed screenshot).



contentACCESS Central Administration

System | File Archive | Email Archive | Custom plugins

Save | Discard changes | Connection | User interface | Users | System administrators | Login providers | System | Licensing | Notifications | Monitoring | **Cluster** | Tenants | All databases | contentWEB | officeGATE | accessGATE mobile | Virtual drive configuration

Edit | Application Settings | Security | **Services** | Tenants | Client Applications

Cluster
System > Services > Cluster

refresh | disable auto refresh

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	31%	1%	7.33%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 11:17:40 AM
Online	TECHNB0002	192.168.30.1	39%	12%	20.33%	0	Job runner (processing)	Unlimited	No	9/17/2015 10:20:37 AM	Never	9/17/2015 11:17:45 AM

Screenshot: Nodes' grid

There are 2 control buttons available in the status pane of the available nodes:

- ✓ “refresh” button serves to reload the last cluster status from the database;
- ✓ “disable auto refresh”/“enable auto refresh” buttons serve to disable/enable auto refresh (in every 5 seconds) of the last state from the database.

The node where contentACCESS Central Administration is installed is marked with a bold black color.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	31%	1%	0.67%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 1:45:14 PM
Online	TECHNB0002	192.168.30.1	39%	0%	20.33%	0	Job runner (processing)	Unlimited	No	9/17/2015 1:45:08 PM	9/17/2015 1:33:56 PM	9/17/2015 1:45:08 PM

How a node can be configured? Node configurations are available for the user from the node’s context menu, with clicking on “Edit” in the dropdown list and configuring it in the “Change node” dialog.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	31%	1%	0.67%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 1:48:34 PM
Online	TECHNB0002	192.168.30.1	39%	84%	48.67%	0	Job runner (processing)	Unlimited	No	9/17/2015 1:45:08 PM	9/17/2015 1:33:56 PM	9/17/2015 1:48:50 PM

Edit
Delete
Shutdown

Change node ✕

Enabled

Role

Max job count Unlimited

Description

OK Cancel

In this dialog it is possible to set up the following node configurations:



- ✓ Enable/disable a node with checking/unchecking the **Enable** checkbox;
- ✓ Change the role assignment of the selected node with selecting the role type from the **Role** dropdown list;
- ✓ Set the maximum count of jobs that can parallel run on the node (option **Max. job count**).

The following information are available in the nodes' grid, when reading from left to right:

Status: This column marks if the selected node is online or offline, i.e. if it is ready to process tasks or not.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	42%	16%	33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

The node can have one of these 3 statuses:

- ✓ The green (●) spot means, that the node is enabled, i.e. its service is running and the node is ready for processing;
- ✓ The yellow (●) spot means, that the node is disabled, i.e. its service is stopped and the user cannot run any plugin on it. However the server is still running.
- ✓ The red spot (●) means that the contentACCESS server on the selected node is currently turned off. A node in offline status can be started again with starting up its service ("GATE.contentACCESS" windows service must be started).

Our TECHNB0002 node was installed in disabled mode, which is indicated with a yellow spot in the status column:

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	31%	1%	7.33%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 11:17:40 AM
Online	TECHNB0002	192.168.30.1	4%	12%	7.33%	0	Job runner (processing)	Unlimited	No	9/17/2015 10:20:37 AM	Never	9/17/2015 11:17:45 AM

The node can be enabled/disabled with opening the node's context menu, clicking on "Edit" and checking/unchecking the "Enabled" checkbox in the "Change node" dialog:

The screenshot shows the 'Change node' dialog box for node TECHNB0002. The 'Enabled' checkbox is checked, indicating the node is enabled. The dialog also shows Role: Job runner (processing), Max job count: Unlimited, and Description: empty.



Server name: The server name where the contentACCESS node is installed is displayed here. Our first node is installed on server “TANEWS”, and the second node installed on “TECHNB0002”.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	62%	36%	49/33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

Server IP: The IP of the server, where the node is installed is displayed here.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	62%	36%	49/33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

Memory usage, CPU usage, Overall load: Displays actual information about the load balance of the selected node. If the cluster selection strategy is set to “Balanced”, then the nodes will be selected for the tasks that they should perform according to these values. If the node is in offline status, the value will be “0”. If the value is more than 70%, then the value will get a red background color.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	62%	36%	49/33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

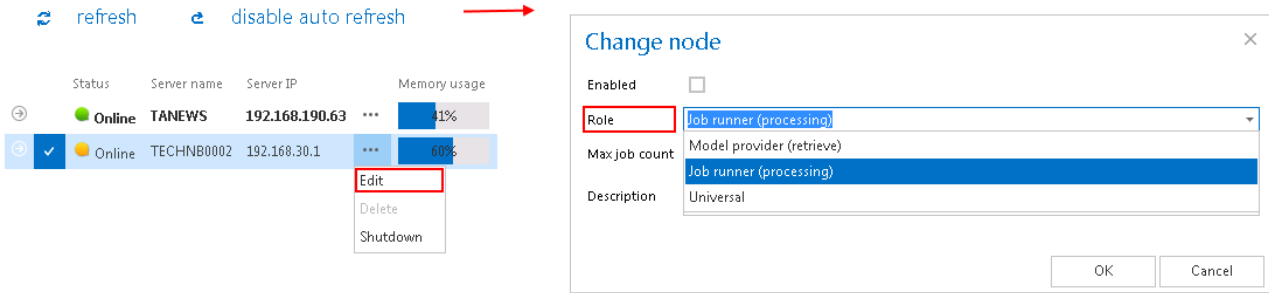
Running job count: Informs the user about the currently running job count on a specific node. On the screenshot below we can see, that on node “TANEWS” two file system archive jobs are running. With clicking on the arrow sign at the left side of the row the user may open the details of these 2 job runs:

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping																					
Online	TANEWS	192.168.190.63	30%	2%	30.67%	2	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 12:42:43 PM																					
<table border="1"> <thead> <tr> <th>ID</th> <th>Tenant</th> <th>Display Name</th> <th>Status</th> <th>Last Duration</th> <th>Progress</th> <th>Summary</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>TECH-ARROW</td> <td>File archive job</td> <td>Running</td> <td>7 seconds</td> <td>0 %</td> <td>0 folders processed 28 documents processed (7 versions created, 21 newly archived)</td> </tr> <tr> <td>139</td> <td>TECH-ARROW</td> <td>File archive with DELETE method</td> <td>Running</td> <td>6 seconds</td> <td>0 %</td> <td>0 folders processed 21 documents processed (21 newly archived)</td> </tr> </tbody> </table>													ID	Tenant	Display Name	Status	Last Duration	Progress	Summary	72	TECH-ARROW	File archive job	Running	7 seconds	0 %	0 folders processed 28 documents processed (7 versions created, 21 newly archived)	139	TECH-ARROW	File archive with DELETE method	Running	6 seconds	0 %	0 folders processed 21 documents processed (21 newly archived)
ID	Tenant	Display Name	Status	Last Duration	Progress	Summary																											
72	TECH-ARROW	File archive job	Running	7 seconds	0 %	0 folders processed 28 documents processed (7 versions created, 21 newly archived)																											
139	TECH-ARROW	File archive with DELETE method	Running	6 seconds	0 %	0 folders processed 21 documents processed (21 newly archived)																											
Online	TECHNB0002	192.168.30.1	50%	24%	44%	2	Job runner (processing)	Unlimited	No	9/17/2015 10:20:37 AM	Never	9/17/2015 12:42:59 PM																					

Role: A node can be either universal, job runner or model provider; the role type of the particular node can be viewed here. As we can see, our “TANEWS” node has assigned “Universal” role, and “TECHNB000” has assigned “Job runner” role.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	62%	36%	49/33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

The assigned roles can be edited with clicking on “Edit in the node’s context menu, and setting the desired node in the “Change node” dialog.



If we are planning to use a node for multiple tasks in the future, we can modify its role to “Universal”.

Max. job count: The maximum count of jobs that can be parallel run on a node can be viewed right here. The number of jobs that can run on a node can be limited. In case of our nodes this job count is unlimited.

Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB002	192.168.30.1	62%	36%	48-33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:49 PM

This value can be adjusted with opening the “Change node” dialog from the node’s context menu. Click on “Edit” in the node’s context menu, and set the desired value in the dialog. Now we set this value to “10”:



If 10 jobs will be parallelly running on this node, and we want to start up a new, 11th job that should run on this node, then this job will be in waiting status until the processing node will be available.

139	File archive with DELETE method	File system archive	Waiting	2 hours ago	12 seconds	Waiting for 1 second	Yes	TANEWS (192.168.190.63)
-----	---------------------------------	---------------------	---------	-------------	------------	----------------------	-----	-------------------------

If our 11th job could be run on any available node, then another node will pick it up for processing. The node where the job should run depends on the job settings. For more information check section “[Jobs' page, jobs' context menu](#)”.

Enabled: A node can either be enabled (it is online, and its service is currently running), or can be disabled. A node is disabled, when it is running, but it is unavailable for further processing tasks. By default, the nodes are in enabled state, but it is recommended to set them here as disabled in case of planned system updates, or if any failure occurred and the problem must be fixed.



Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	39%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 3:36:55 PM
Online	TECHNB0002	192.168.30.1	62%	86%	48-33%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 3:36:48 PM

To enable/disable nodes open the “Change node” dialog with clicking on “Edit” in the node’s context menu, and check/uncheck the “Enabled” checkbox in the dialog.

Change node ✕

Enabled

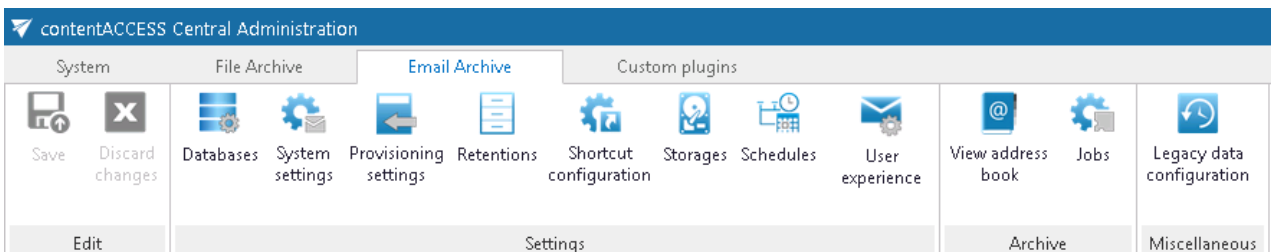
Role:

Max job count: Unlimited

Description:

In the last columns of the grid the time of **Last start/Last stop** and **Last ping** are available.

How to assign a job to the selected node? Now we will assign an Email archive job to the “TECHNB0002” node. We navigate to the **Email Archive** tab → **Archive** → **Jobs** on the ribbon, and open the Jobs’ page. Here we click on **+ new** to create an email archive job, which will be assigned to this node.



Email Archive > Archive > Jobs

+ new ↻ refresh ⏸ disable auto refresh

The “Add new job instance” dialog will open. Here we set up the desired job, and select “TECHNB0002” from the “Run on node” dropdown list. Then we click on “Add”.

Add new job instance ✕

Available jobs:

Run on node: TECHNB0002 [192.168.30.1]

Display name:

Description:

We need to configure the newly added job on its job configuration page. For more information how to configure processing jobs refer to the respective sections.

Now we can enable the TECHNB0002 node.

Status	Server name	Server IP	Memory usage
✓ Online	TANEWS	192.168.190.63	39%
✓ Online	TECHNB0002	192.168.30.1	62%

Edit
Delete
Shutdown

➔

Change node ✕

Enabled

Role:

Max job count: Unlimited

Description:

The node will start to run the assigned job at time which is configured in the job's scheduler settings.

Important!!! When configuring a job that may run in a cluster system the administrator must specify a **storage and a database that is accessible by all the nodes** in the cluster. If a node which picks up the job can't access the configured storage or database, the job will fail and will not execute the task:

- In the **database repository settings** of the database (selected for the job) the administrator must **establish the connection with SQL user credentials**. If an explicit user is not specified, then the contentACCESS service user will be used, and the service must run under the same domain user. This ensures that the database can be accessed by the job regardless of where it is running.
- In the **storage repository settings** of the storage (specified for the job) the administrator must **specify the storage as a network share** (e.g. `\\ServerName\RootFolder\Subfolder`) so it can be accessible by the job from everywhere.

How to shut down a node? In certain cases it might happen, that a node should be turned off. This operation can be done from the context menu of the selected node. Click on the ellipses (...) and select

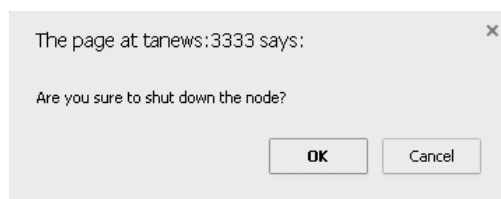


“Shutdown” option from the dropdown list. With this action the contentACCESS service on the selected node will be turned off, and the node will get a red color (offline). Node shutdown is a deferred action and it might take 1 minute.

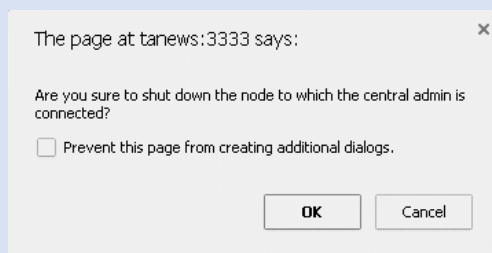
Status	Server name	Server IP	Memory usage	CPU usage	Overall load	Running jobs count	Role	Max job count	Enabled	Last start	Last stop	Last ping
Online	TANEWS	192.168.190.63	99%	1%	30%	0	Universal	Unlimited	Yes	9/17/2015 10:20:20 AM	Never	9/17/2015 2:37:04 PM
Online	TECHNB0002	192.168.30.1	93%	100%	71%	0	Job runner (processing)	Unlimited	No	9/17/2015 2:36:13 PM	9/17/2015 2:31:35 PM	9/17/2015 2:36:45 PM



If you are quite sure that you want to shut down the node, answer “OK” for the following pop-up window:



Note: If you are about to turn off the node where Central Administration is running, a next pop-up window will warn you about this again.

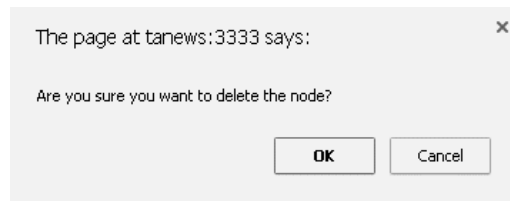


How a node can be deleted? With this action the user may delete a node from the node list. Only nodes with offline status can be deleted. When the contentACCESS service is started up again, the node will appear in the list. To delete it, click on it, open its context menu with a click on the ellipses (...), then select “Delete”.

Offline	TANEWS	192.168.190.63	0%	0%	0%	0	Universal	Unlimited	Yes	8/21/2015 2:18:41 PM	8/24/2015 10:53:17 AM	8/24/2015 10:53:17 AM
---------	--------	----------------	----	----	----	---	-----------	-----------	-----	----------------------	-----------------------	-----------------------



contentACCESS will ask the user again, if he is sure about deleting the node.



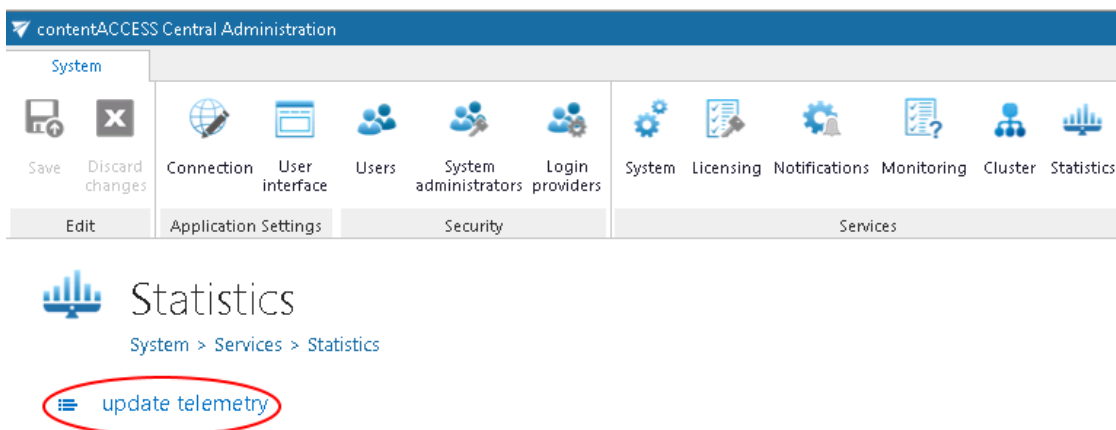
Statistics

The telemetry service of contentACCESS permanently collects data from the

- a) contentACCESS system as a whole,
- b) email archive and
- c) file archive jobs

and makes a record of the collected data. The data changes are summarized into telemetry graphs. These graphs give a simple and quick overview about the actual data usage of the last 10 days. The graphs can be viewed on the **Statistics** page, which is reachable by navigating to **System** → **Services** → **Statistics** on the ribbon. The values displayed on this page are permanently updated by the telemetry job, which runs and collects the necessary data every night between 1 AM to 2 AM. If you want to see the actual usage data immediately, then you can run the **telemetry updater**, which will actualize it for you immediately.

The telemetry job's configuration page can be opened by clicking on the "update telemetry" option. Only a system administrator has the right to open the configuration page of the telemetry job. With clicking the option the telemetry job is automatically triggered, too.



A new scheduler may be created and resource settings may be changed to the telemetry job on this page. The job can be started/stopped or activated/deactivated from the same page's status bar, too.



start immediately
 refresh
 disable auto refresh
 deactivate job
 logs
 edit
 ↑

Status: **Idle**
 Progress: 9 Plugins updated (completed 34 seconds ago)

Scheduling settings

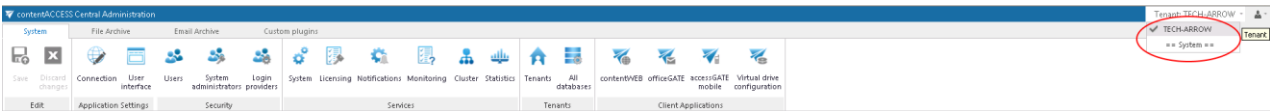
Scheduled in:

Resource settings

Worker thread count:

The telemetry information may be checked to the

- **system** as a whole – if the system tenant is selected
- **given tenant** – if only the given tenant is selected in the upper right menu:



The given page is divided into 3 sections/4 charts. Any growth or reduction in the count of tenants, archived emails, databases, root folders count can be checked here using the respective graph.

1. Email archive statistics

Left axis: displays the number of the archived emails (blue line) and mailboxes (green line)

Right axis: displays the total size of the archived emails (red line)

2. File archive statistics

Left axis: displays the number of the archived files (blue line) and root folders (green line)

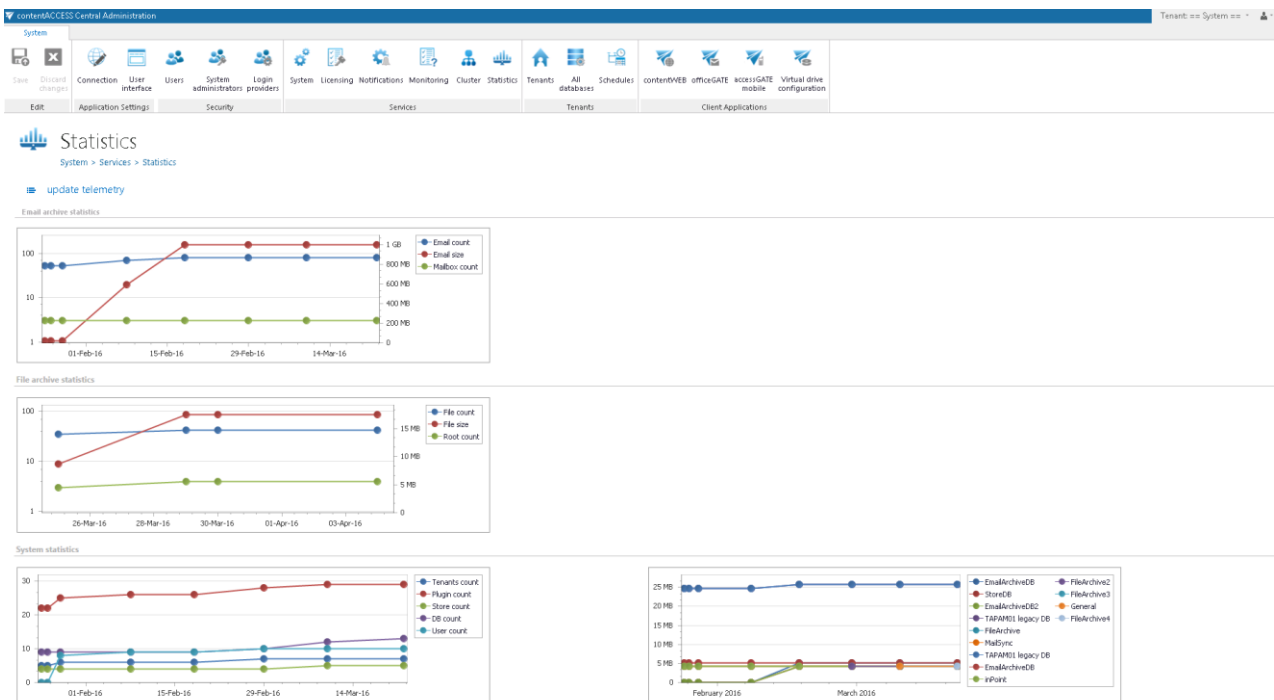
Right axis: displays the total size of the archived files (red line)

3. System statistics

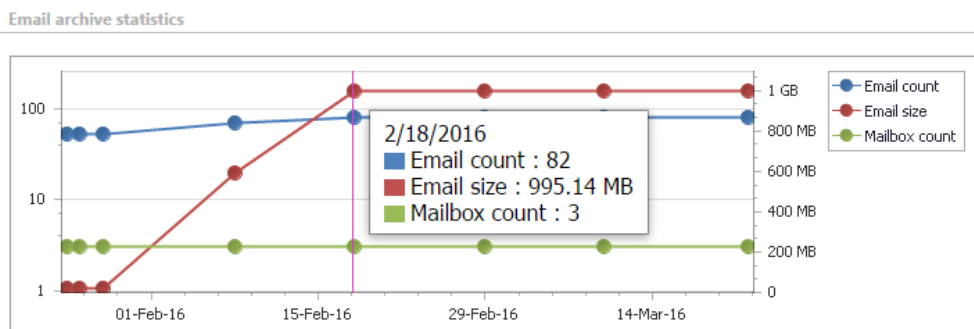
The 1st chart displays the actual count of tenants (blue line), plugins (red line), stores (green line), databases (purple line) and users (light blue line) depending on the selected day. Move with your cursor over the grid to view the exact values in the given time period.



The 2nd chart displays the size of the configured databases. Each database is marked with a different color.



The actual information is displayed with moving with the cursor over a given date in the chart.



How to create/configure databases – All databases

Processing plugins of a tenant write the metadata into the selected SQL database, which was formerly created by the administrator. The system database is always created during the installation process of contentACCESS, but it is not associated with a tenant. Databases associated with specific tenants are set up by the system administrator, on the **All databases** page.

Factors to be considered before creating databases:



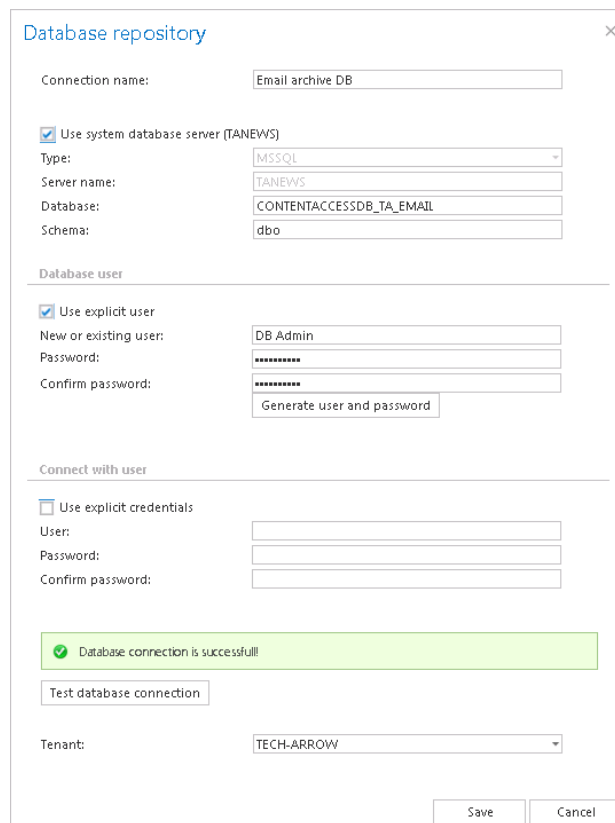
- ✓The number of users expected for your database – if the company (tenant) has more than 2,000 mailboxes, it is recommended to create more archive databases (e.g. for storage, email archive, provisioning, or to set separate databases for the Exchange groups) to ensure a better transparency of data.
- ✓The amount of expected data in the database – always estimate how much space your data will require.
- ✓It is also worth to consider the retrieving capacities of the database.

To open **All databases** page in contentACCESS, navigate to **System** tab → **Tenants** → **All databases** control on the Central Administration ribbon. On this page you may find all databases created to all tenants. The server, where the tenant databases are installed, the database name, schema, user details and the associated tenants are also displayed in the grid:

Connection name	Server	Type	Database	Schema	User	Tenant
News DB	*** (local)	0	CONTENTACCESSDB_NEWS	dbo	sa	News
File Archive DB	*** TANEWS	0	CONTENTACCESSDB_TA_FILE	dbo		TECH-ARROW
Store DB	*** tanews	0	CONTENTACCESSDB_TA_FCE	dbo		TECH-ARROW
STORE REPLICATION DB	*** TANEWS	0	CONTENTACCESSDB_TA_STORE REP	dbo		TECH-ARROW
Email Archive DB_new	*** TANEWS	0	CONTENTACCESSDB	dbo		TECH-ARROW
EX-employees' DB	*** TANEWS	0	CONTENTACCESSDB_EX EMPL	dbo		TECH-ARROW
LegacyDB	*** TAPAM01	0	EXCHANGEDB	dbo	sa	TECH-ARROW
Email Archive DB	*** TANEWS	0	CONTENTACCESSDB_TA_EMAIL	dbo		TECH-ARROW

+ create new

To be able to run processing jobs in contentACCESS, a new database must be created. This database must be then selected on the job's configuration page, or in case of archiving the Exchange, it can be also associated to a mailbox from the address book. Click on **+ create new** option and fill required data in the **Database repository** window.



Connection name: Enter a display name for the newly created database. This will be the name of the database in contentACCESS Central Administration.

If you want to use system database server check the “Use system database server” checkbox as it is shown on the screenshot above. This will populate the server settings. Type the database name into the “Database” field. This will be the name of the database on the SQL server. If you want to use database server which differs from the system database server, then follow the next steps:

- a) **Type:** choose the type of database from the dropdown list (**MSSQL** is supported by default)
- b) **Server name:** enter the name of the database server (where MSSQL is installed) here
- c) **Database:** the database will be created on SQL server under this name
- d) **Schema:** type in the database schema (optional)

Under **Database user** configurations you may create a database user. There are multiply options how to create a database user: 1) You can use an already existing user to connect to the database, or 2) you can create a new database user. 3) It is also possible to use the service user credentials to connect to the database, or 4) you may create a database user with random credentials (the user name can be edited).



- 1) If you want to use an already existing user, check the **Use explicit user** checkbox and enter the user credentials into the **New or existing user/Password/Confirm password** textboxes.

Database user

Use explicit user

New or existing user:

Password:

Confirm password:

- 2) If you want to create a new database user with custom credentials, type them into the **New or existing user/Password/Confirm password** textboxes. Do NOT click on the **Generate user and password** button.

Database user

Use explicit user

New or existing user:

Password:

Confirm password:

- 3) To connect with the service account, leave the **Use explicit user** checkbox unchecked and leave all the fields empty.

Database user

Use explicit user

New or existing user:

Password:

Confirm password:

- 4) To create a new user with a random password check the **Use explicit user** checkbox, and click on the **Generate user and password** button. The user name can be edited directly here.

Database user

Use explicit user

New or existing user:

Password:

A newly created database user will have access permissions only to the currently created database.

Under **Connect with user** enter the credentials of the database user, who has the right to create a new database on the SQL server. If the **Use explicit credentials** checkbox is not checked, then contentACCESS will automatically connect to the database (MSSQL) under the contentACCESS



service account. If you want to connect with an explicit user, check this checkbox, then enter the login data.

Test database connection: with a click on this button run a test connection to check if contentACCESS managed to connect to the selected database server (MSSQL).

Tenants: select a tenant from the dropdown list to which the database will be associated.

Click on **Save** and the **New database** will turn up in the list of databases.

Note: When we are archiving from the Exchange server, the database must be associated with the mailbox from the address book, or the first running email archive job will associate the configured database to the archived mailbox(es). In case of file system archive a database must be selected during the configuration process of the job.

+ configure existing

If you need to establish a connection between an already existing SQL database and contentACCESS, click on **+ configure existing** and configure the required data in the **Database repository** window. In this case, you do not create a new database; an already existing database from the SQL server is used only.

Connection name: Enter a display name for the database. This will be the name of the database in contentACCESS.



If you want to use system database server check the “Use system database server” checkbox as it is shown on the screenshot above. This will populate the server settings. Type the database name into the “Database” field. This will be the name of the database on the SQL server. If you want to use database server which differs from the system database server, then follow the next steps:

- a) **Type:** choose the type of database from the dropdown list (**MSSQL** is supported by default)
- b) **Server name:** enter the name of the database server here (where MSSQL is installed)
- c) **Database:** type here the name of an already existing database on the SQL server
- d) **Schema:** type in the database schema (optional)

Use explicit credentials: if this checkbox is not checked, then contentACCESS will automatically connect to the database (MSSQL) under the contentACCESS service account. If you want to use an explicit database user, check the checkbox and enter the user credentials.

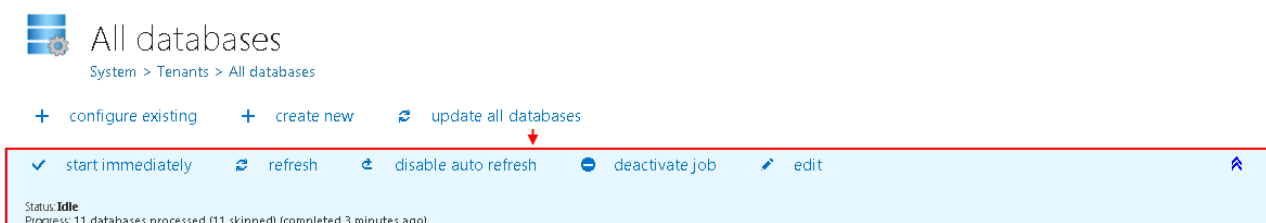
Test database connection: with a click on this button run a test connection to check if contentACCESS managed to connect to the selected database server (MSSQL).

Tenants: select a tenant from the dropdown list to whom the database will belong to

Click on **Save** and the **New database** will turn up in the list of databases.

Update all databases

With a click on this option it is possible to update the structure of all databases. Click this button and the status bar of the updating plugin will appear. In this status bar, the following operations are accessible; start/stop running, manual refresh, enable/disable auto refresh and logs (this will redirect the user to the last run session of the database updating plugin):

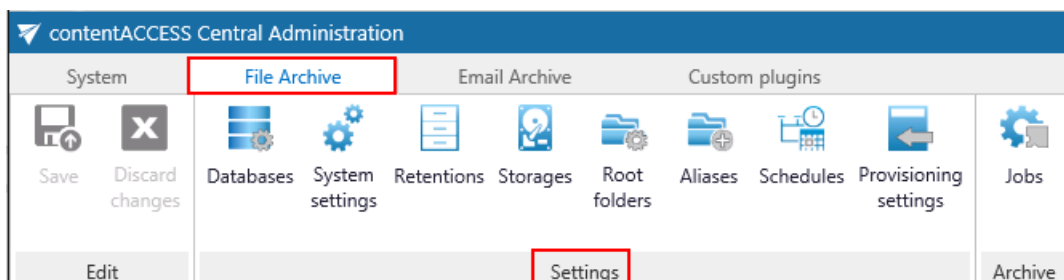


Common features

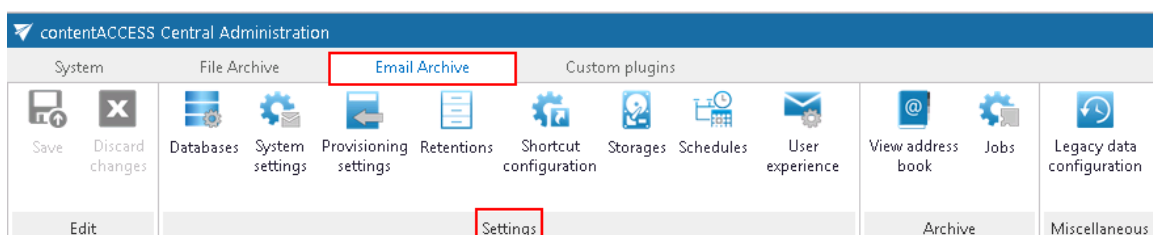
For crawling mailbox and folder contents contentACCESS uses **plugins**. A plugin in contentACCESS is a component of the software that adds specific features to the application. Each type of a plugin has its own specific use-case, but its features can be simply extended dependently on the process that it should implement.

Dependently on the implemented process the administrator creates certain instances from these plugins, which we call “jobs”. Even these jobs differ from each other concerning their settings, but there are certain features that are common to all of these jobs: all jobs will use a database where they will write metadata, they will have a storage where they will store binaries, they will have a scheduler which will specify their run times, they will have a retention which will determine the period as long as the data (documents, emails, etc.) processed by a job must be accessible etc. These settings are configurable in the following groups:

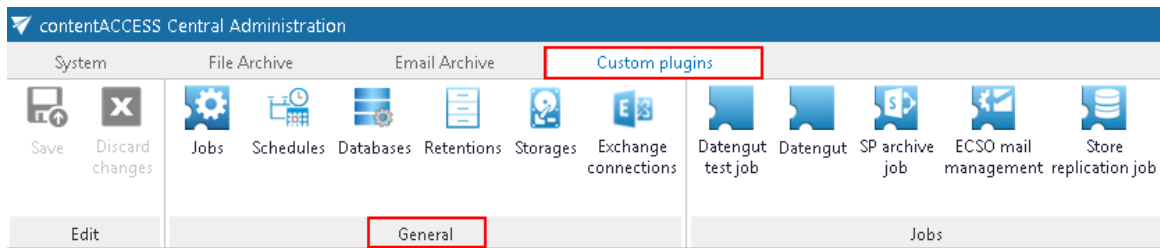
- **File Archive tab → Settings group by the File Archive;**



- **Email Archive tab → Settings group by Email Archive;**



- **Custom plugins tab → General group by Custom plugins.**



Only the features configured in these settings can be selected on the processing job's configuration page.

In this section we will explain for you how to adjust these framework features. These configurations can be done in the same way by all plugin types, with navigating to the appropriate control button on the Central Administration ribbon. The configuration logic is from left to right. If you follow this logic, then all necessary configuration will be done for the next step.

Databases

(Email Archive → Settings → Databases button;

File Archive → Settings → Databases button;

Custom plugins → General → Databases button)

Open the **Databases** page from the **Databases** button. The databases configured to your selected tenant are displayed on this page, in the database grid. The grid contains the following database information: the server name, where the database is installed, the type of database (MSSQL), the database name on SQL, the schema and the database user name. On this page the administrator can configure a connection, where the processed metadata **of this particular tenant** will be stored. If such a database will need to be configured, click on the **+ configure new** button and fill the required fields in the **Database repository** window. If the system database server will be used, then check the **Use system database server** checkbox. Into **Database** textbox type the already existing SQL database name (if such a database has not been created yet, refer to **+ create new** in section [“How to create/configure databases – All databases”](#)).

By default contentACCESS is connected to the database with the credentials of the user, under whom contentACCESS is running. If you want to use other credentials which differ from these credentials data, then check checkbox **Use explicit credentials** and enter the **User** and **Password** that you want to use for connecting to the tenant database. You can also run a test connection with the **Test database connection** button in the left corner of the window.

Database repository ✕

Connection name:

Use system database server (TANEWS)

Type:

Server name:

Database:

Schema:

Use explicit credentials

User:

Password:

Confirm password:

It is possible to modify the settings, delete the database or set the database as default on the **Databases** page, from the database's context menu as it is shown on the screenshot below:

Connection name	Server	Type	Database	Schema	User
File archive DB	*** TANEWS	MSSQL	CONTENTACCESSDB_TA_FILE	dbo	
File content extractor DB	*** tanews	MSSQL	CONTENTACCESSDB_TA_FCE	dbo	
Email archive DB	*** TANEWS	MSSQL	CONTENTACCESSDB_TA_EMAIL	dbo	

Edit
 Delete
 Set default

Schedules

(Email Archive → Settings → Schedules button;


File Archive → Settings → Schedules button;

Custom plugins → General → Schedules button)

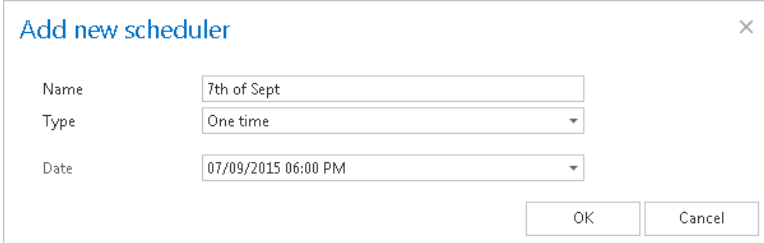
How to use schedulers in contentACCESS? Jobs in contentACCESS can be automatically triggered with the help of schedules. Schedules are used to define, when a processing task should start automatically and when the processing should end and restart again. In other words, administrator may schedule jobs which will automatically run at times which is configured in the given job's scheduler settings. It is possible to set numberless schedulers, and then select the appropriate one when configuring an



exact job. Schedules help the users to work more efficiently, without wasting their time with logging into the software and start the processing manually.

Navigate to the **Schedules** page from the  **Schedules** button on the ribbon. Here click on **+ new** option. In the **Add new scheduler** dialog window enter the scheduler **Name**, select the **Type** of scheduler from the dropdown list. In contentACCESS, there are 3 types of schedulers which can be set: **One time**, **Always run** and **Week schedule with repeat**.

One time will run only once; by this type of scheduler we specify the start date only; the job will end when it finished the processing. One time schedulers are often used by restore or recovery jobs, i.e. by jobs which are run occasionally. The schedule that we set up now will start to run on 7th of September at 6 PM, and will end once the job finished its task:



Always run will run always without interruption. The job which uses this scheduler type will be started immediately when it is configured and saved. With the use of **Frequency in minutes** function the user may set the time intervals, when the scheduler should check, if the job is running. In case of our “Non-stop” scheduler (check the screenshot below) the running frequency is set to 1 minute, so the scheduler will wake up in each minute and will check, if the job is still running. If it is running, then it will check the running after 1 minute again; if it is not running, then the job will be started again. This scheduler type is typically used by archiving from journal mailboxes.



Week schedule with repeat will run at the same hours every week, repeatedly. In the scheduling tab click on the fields to set the days and hours, when the processing should start. One cell will mark one hour. By using the **Running frequency in minutes** option the user may set the time intervals, when the scheduler should check, if the job is running. If running frequency is set e.g. to 5 minutes, then the



scheduler will check in every 5 minutes, if the job is still running. If it is running, then it will check the running after 5 minutes again: if it is not running, then the job will be started again. It is worth to use this option, if the processing should run continuously, e.g. from morning to evening, and new tasks are continuously added that should be processed. If we check the **Run only once per interval** checkbox, then the running frequency will be automatically deactivated, and the job will run only once in this time period. It is recommended to run a process once in an interval, if the processing should be performed e.g. at the end of each working day. With checking the **Stop job at interval end** checkbox the user may stop a job after the time interval, which is set. Never mind, if the processing has not been finished yet, the job will be forcibly stopped and it will be started again according to the calendar settings. The red color of the **Add new scheduler's** cells mark the time intervals, when the job is stopped.

Our “Every night” scheduler (its setting can be viewed on the screenshot below) will run the job from 7 PM till midnight, will stop processing at midnight, nevertheless the process is finished. It will run only once in this interval. We can use a similar scheduler to archive the old company documents. It makes no sense to select running frequency in this case, because during the night nobody will add new files to archive into the file location.

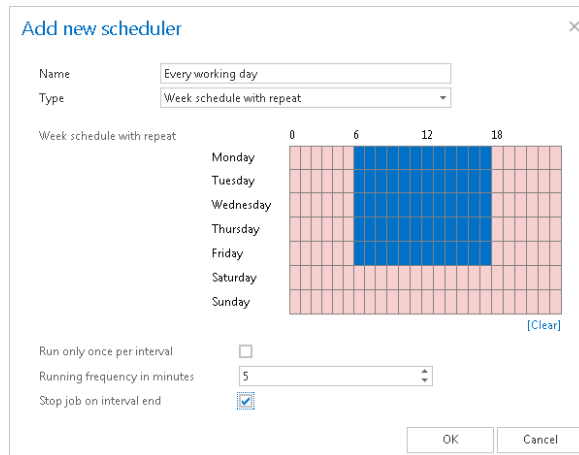
The screenshot shows a dialog box titled "Add new scheduler". It contains the following fields and options:

- Name:** Every night
- Type:** Week schedule with repeat
- Week schedule with repeat:** A grid showing days of the week (Monday to Sunday) and time intervals (0, 6, 12, 18). The area from 0 to 18 is shaded red, and the area from 18 to 24 is shaded blue. A "[Clear]" button is located at the bottom right of the grid.
- Run only once per interval:**
- Running frequency in minutes:** 5
- Stop job on interval end:**
- Buttons:** OK, Cancel

Setting the **Running frequency in minutes** option might be useful when the user is archiving from an Exchange journal mailbox for example, or from any location, where the tasks to be performed are accumulating continuously during a time period. If the job processed all items, the schedule should also check periodically, if there is anything new to archive. The “Every working day” scheduler (on the screenshot below) is set to process the email records from 7 AM till 6 PM. The first archive process will run from 7 AM until it has finished all current tasks, and the scheduler will check in each 5 minutes, if any new tasks (email records) were added to process. The archiving will end at 6 PM each day,



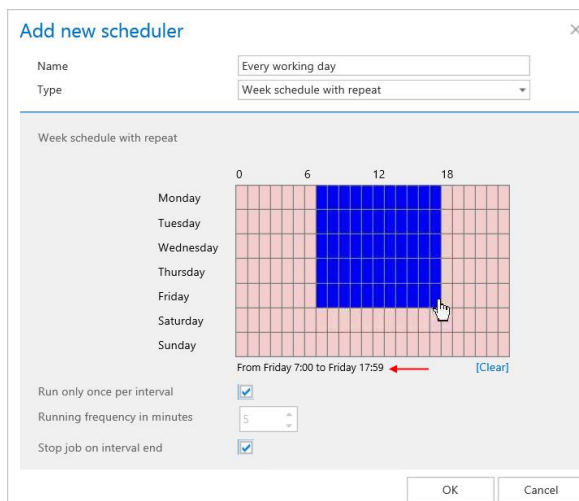
nevertheless there is something left unfinished. A scheduler similar to this may be set to archive journal mailboxes on the Exchange:



This scheduler type is often used to run provisioning jobs, too.

If the user would not like to end the processing at 7 PM, he should uncheck the “Stop job at interval end” option.

Tip: When the user is setting a desired time range, or just moves with the mouse over the selected time range, the Weekmap scheduler highlights this time range and displays the exact start and end times beneath the calendar:



From the scheduler’s context menu, with a left click on ellipsis (...) it is possible to edit or delete this configuration if any modifications must be implemented. The scheduler type and its description can be also viewed in the grid.



Schedules

Custom plugins > General > Schedules

+ new

Name	Type	Description
Provisioning scheduler	...	OneTime Running on 1/1/2000 12:00:00 AM
<input checked="" type="checkbox"/> Every night	...	WeekMapWithRepeat Running based on the weekmap and continuously repeat in every X minutes
Never run	Edit Delete	WeekMapWithRepeat Running based on the weekmap and continuously repeat in every X minutes

Retentions

(Email Archive → Settings → Retentions button;

File Archive → Settings → Retentions button;

Custom plugins → General → Retentions button)

What is retention time? It represents the period of time a document should be kept or "retained" electronically. Each country has different retention times required, so it is recommended to set a time, which is required by the competent organization in your country, or by the internal regulations of the company.

On the **Retentions** page the administrator may see all already configured retentions, and to set up new retention times, which will be used by a processing job. Only retentions configured on the **Retentions** page can be selected when configuring a processing job. To set up a new retention click on **+ new** option. In the **Retention repository** dialog enter the **Retention name**, fill the **Description** and set the **Retention time in months**. Then click **Save**.

Retention repository ✕

Retention name:

Description:

Retention time in months:

It is possible to modify the settings, delete the item or set the retention as default one from the retention's context menu, via left click on ellipsis (...) as it is shown on the screenshot below:



Retentions

Custom plugins > General > Retentions

+ new

Retention name	Retention time in months	Description
2 years	***	24
1 year	***	12

Edit

Delete

Set default


Default retentions are used by manual archiving/manual restoring of emails directly from the mailbox.

Storages

(Email Archive → Settings → Storages button;

File Archive → Settings → Storages button;

Custom plugins → General → Storages button)

For storage configurations open the **Storages** page (navigate to  **Storages** button on your ribbon). The storage configured on this page can be selected as a destination for the processed binaries when configuring a certain contentACCESS job. contentACCESS supports **Disk** storage (most frequently used type), **H&S Hybrid Store**, **Perceptive**, **Datengut** storage etc. The table of storages is initially empty.

To configure a new storage click on **+ new** on the **Storages** page. The **Storage repository** window will open. Type in the **Store name** and select a **Store type** from the list. The required storage settings depend on the storage type that you have selected.

Configurations of the 4 most frequently used storage types will be detailed in the following sections of this chapter:

✓ Disk store type

This store type is used if the user would like to store the binaries on a single local or remote disk. This is the most frequently used store type from the above listed types. After this store type has been selected, fill in the **Path** (the target destination for the binaries) and enter credentials if required. Choose whether you would like to have extra recovery functionality with checking/unchecking **Store metadata in DB**. When selected, contentACCESS saves the extended metadata into the storage database. This function can spare even more space in the database. The user also has the possibility to decide about the usage of **Compression function**. With checking this checkbox all files larger than 4 kilobytes will be compressed except of already compressed file formats such as JPG, MP3 etc. This



feature might slow down the store functionality, but will spare storage space on the other hand. Under **Database settings** select a **Database connection**. This configuration will play an important role when using the Store replication plugin described in section [Storage replication plugin](#). **We recommend NOT to change the already configured database that the disk storage uses** (however, it can be changed using the “Change” button if it is needed). We also advise to verify the connection using the **Test** button. **The test is checking if the right credentials have been specified, and if the connection with the database has been established.**

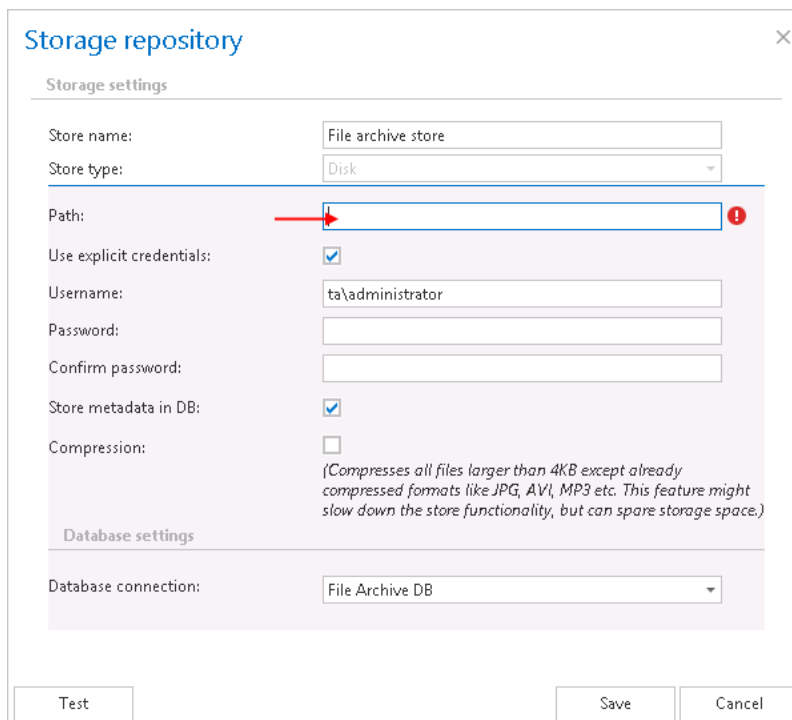
When using Disk store type, please consider requirements for data deduplication. Data deduplication finds and removes duplication within data on a volume while ensuring that the data remains correct and complete. This makes it possible to store more file data in less space on the volume. Deduplication is not supported on:

- ✓ System or boot volumes;
- ✓ Remote mapped or remote mounted drives;
- ✓ Cluster shared volume file system (CSVFS) for non-VDI workloads or any workloads on Windows Server 2012;
- ✓ Files approaching or larger than 1 TB in size;
- ✓ Volumes approaching or larger than 64 TB in size.

What to consider before a previously configured disk storage is changed?

In some cases it may happen, that the administrator needs to move the already configured storage to a new location (e.g. if “C” disk got full and the storage should be moved to disk “D”)? In this case, the following steps must be executed to ensure an access to the already archived data and to continue with archiving the new data:

1. Stop all running jobs!!!
2. Move your old storage location manually into the new storage location (e.g. the folder of “C” disk into a new location on “D” disk);
3. Open the **Storages** page on the contentACCESS Central Administration ribbon, locate your old storage in the list, and double click on it to open the **Storage repository** window to it;
4. In the **Storage repository** window specify the new storage path (where you moved your old storage location);



These settings will ensure, that the archive and restore jobs will automatically use this new storage path. The administrator will not be required to change the storage settings on the jobs’ configuration page, too. The new value will be automatically used by the jobs, where the “old” storage was already configured.



✓ HybridStore

contentACCESS supports the connection with the Hybrid Store. This connection allows contentACCESS to connect to any third-party storage that is supported by this store type. If you want to store the binaries in the Hybrid Store, select it from the **Store type** dropdown list and specify the required connection settings. The following storage settings are required:

Store name: optional name for the Hybrid Store that contentACCESS will use

Store type: HybridStore

Server name: the server where the Hybrid Store is installed

Binding: **http** – universal protocol

net.tcp – can be used only in case that the Hybrid Store and contentACCESS are in the same domain

net.pipe – the fastest and **recommended protocol**; can be used only in case that the Hybrid Store and contentACCESS are installed on the same machine

Use secure connection: Check this option to allow a secure connection with the Hybrid Store. The communication will be secured by a Windows authentication (the contentACCESS service user will be used).

Hybrid store tenant: Click on “Load” to load the list of available tenants based on your Hybrid Store configurations and select the one that should be applied. To load the tenants, there are some requirements:

- NET.TCP or NET.PIPE connection must be used (on HTTP the loading is not supported)
- the contentACCESS service user must be a local system administrator on the HybridStore machine

If the tenants are not loaded, then the user needs to enter the HybridStore tenant ID (GUID) manually.

Scheme: Click on “Load” to load the available Hybrid Store schemes and select the one that should be applied. If Hybrid Store uses secure connection and the option is not checked in the dialog, the schemes will not be loaded.



Database settings: Select here an already created database that contentACCESS will use to store the necessary data. It is **NOT recommended to change** the already configured database that the Hybrid store uses. However, it can be changed using the “Change” button if it is really necessary.

It is advisory to verify the database connection using the “Test” button at the bottom of the dialog.

The screenshot shows a dialog box titled "Storage repository" with a close button (X) in the top right corner. The dialog is divided into a "Storage settings" section and a "Database connection" section. In the "Storage settings" section, there are fields for "Store name" (HybridStore), "Store type" (HybridStore), "Server name" (tahs01), "Binding" (radio buttons for http, net.tcp, net.pipe, with net.tcp selected), "Use secure connection" (checked checkbox), "Hybrid store tenant" (TecharrowHybridStore), "Scheme" (Local), and "Database connection" (TESTDB). There are "Load" buttons next to the "Hybrid store tenant" and "Scheme" dropdowns. A "Change" button with a pencil icon is next to the "Database connection" dropdown. At the bottom of the dialog, there are "Test", "Save", and "Cancel" buttons.

✓ Datengut

This storage type is currently used by synchronizing emails in multiple mailboxes. For more information refer to [Email synchronizer plugin](#).

After this store type has been selected in **Storage settings**, name your storage. contentACCESS will use this name to display the storage on the **Storages** page. Further configure the following sections in the dialog:

Connection configuration: necessary settings to establish a connection with the Datengut storage

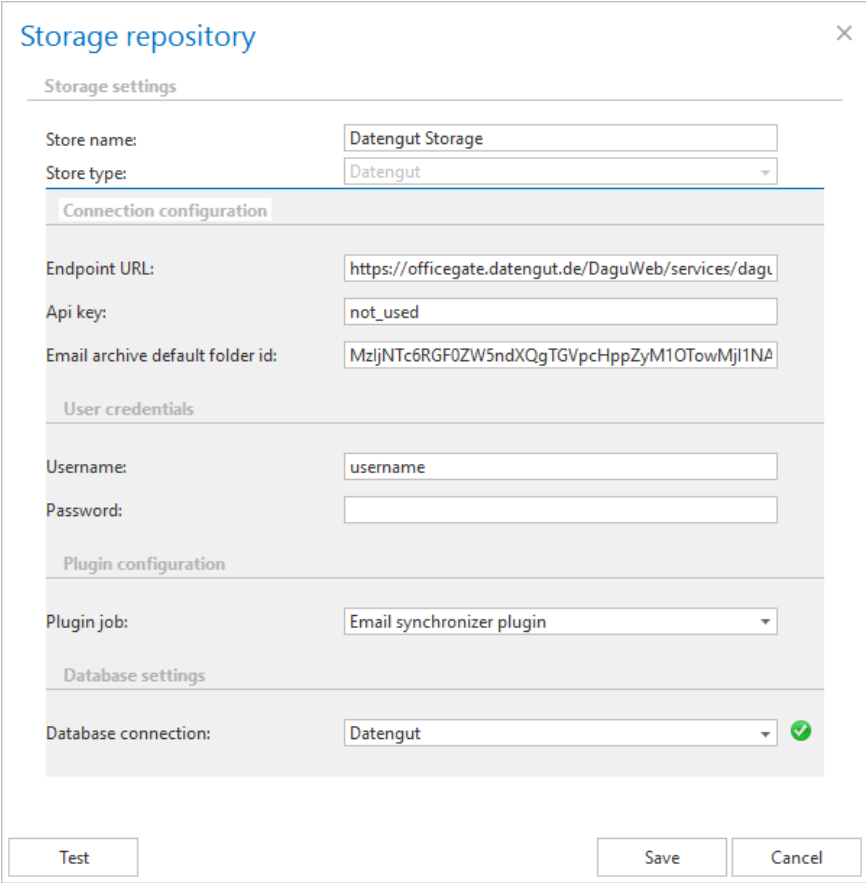
- **Endpoint URL:** Datengut service URL
- **Api key:** optional setting, any value can be entered here
- **Email archive default folder id:** during the archiving process Datengut storage saves the data into a specific storage folder; the ID of this folder must be set here

User credentials: set the Username and Password that can be applied to connect to the storage

Plugin configuration: The email synchronizer job(s) already created in **Custom plugins** → **General** → **Jobs** will be listed in the dropdown list. Select from the dropdown list the **Email synchronizer job** that will collect the metadata of the archived emails in a queue. This job is used to synchronize the email message categories in multiple mailboxes based on the metadata that are saved into its queue.

Note: For more information refer to chapter [Email synchronizer plugin](#).

Database settings: select an already created database that Datengut storage will use to store the necessary data



Storage repository

Storage settings

Store name:

Store type:

Connection configuration

Endpoint URL:

Api key:

Email archive default folder id:

User credentials

Username:

Password:

Plugin configuration

Plugin job:

Database settings

Database connection: ✓

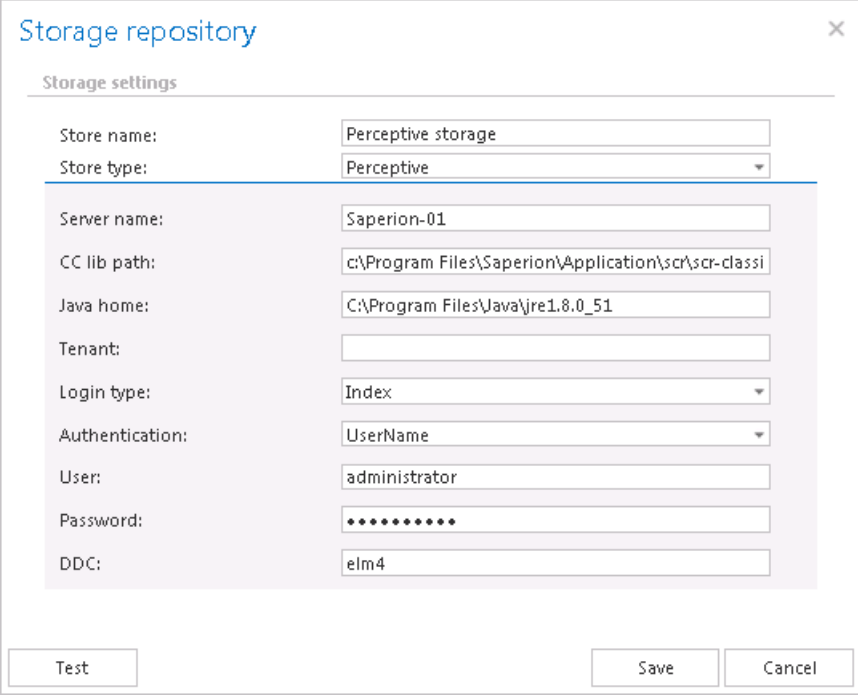
Test Save Cancel

✓ Perceptive

After this store type has been selected, name your storage. contentACCESS will use this name for the given storage on the **Storages** page. The user is further required to specify the following connection parameters:

- **Server name:** the server name where the storage is installed

- **CC library path:** path on which the Classic Connector jar files can be reached, e.g. *c:\Program Files\SAPERION\Application\scr\scr-classicconnector\lib*
- **JAVA_HOME:** JAVA home directory must be set. Depending on the application bitness x64 or x86, e.g.: *c:\Program Files\Java\jre1.8.0_66*
- **Tenant:** in case of non-multitenant system this fields is blank, otherwise the Perceptive tenant should be specified
- **Login type:** “INDEX”, “ADMIN” or “ELM” can be used, the recommended type is “INDEX”
- **Authentication:** choose the applicable authentication from the dropdown list; the recommended is “UserName”
- **User, Password:** specify the applicable user and credentials to be applied for the connection with the storage
- **DDC:** the DDC name where the files will be packed



The screenshot shows a dialog box titled "Storage repository" with a close button (X) in the top right corner. Below the title bar is a section labeled "Storage settings". The settings are as follows:

Store name:	Perceptive storage
Store type:	Perceptive
Server name:	Saperion-01
CC lib path:	c:\Program Files\Saperion\Application\scr\scr-classi
Java home:	C:\Program Files\Java\jre1.8.0_51
Tenant:	
Login type:	Index
Authentication:	UserName
User:	administrator
Password:	*****
DDC:	elm4

At the bottom of the dialog box, there are three buttons: "Test", "Save", and "Cancel".

From the given storage's context menu, via left click on ellipsis (...) you can modify (Edit/Delete/Set default) the storage settings. The configurations adjusted in the **Storage repository** window can be viewed in the grid.



Storages

Email Archive > Settings > Storages


+ new

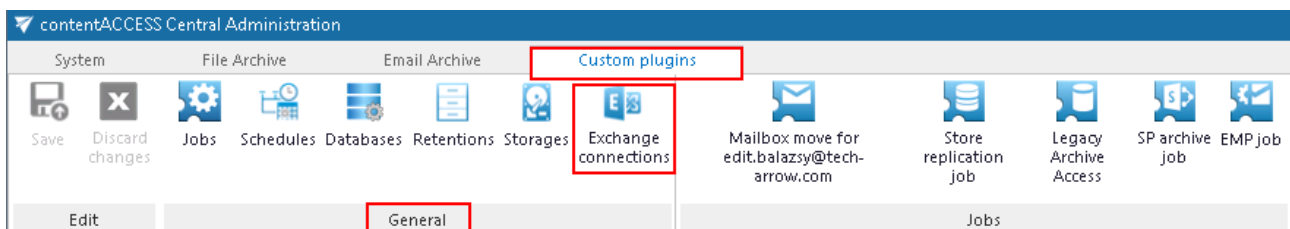
Storage Name	Storage Type	Is default
Email Archive store	*** Store.Disc	Yes
File archive store	*** Store.Disc	No
SP archive store	*** Store.Disc	No
Ex-employees' storage	*** Store.Disc	No

Edit
 Delete
 Set default

Exchange connections

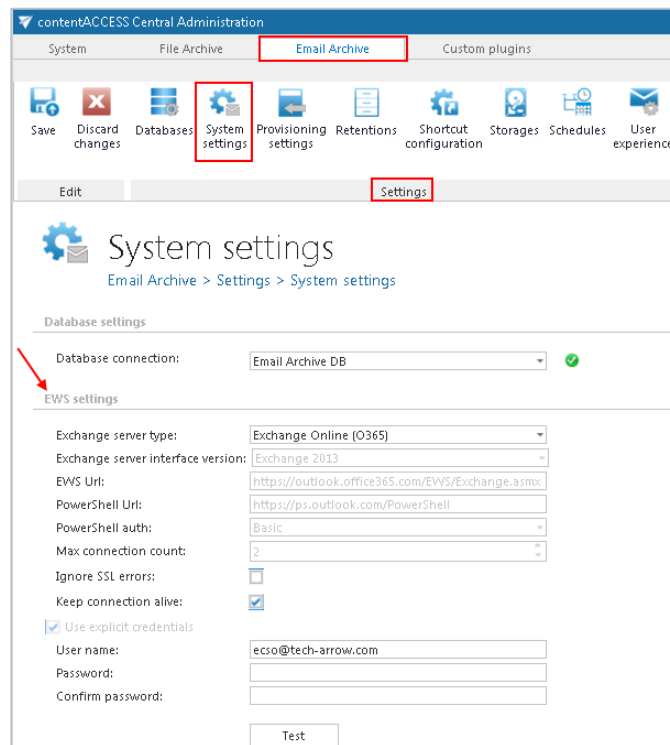
During the configuration of Exchange-based jobs it is obligatory to set the Exchange server connections, where the mailbox to be crawled is located. The Exchange connections can be configured:

- o By email based custom job instances with navigating to **Custom plugins** → **General** group →  **Exchange connections** button.



Here select option **+ new** and insert necessary data into the **Exchange connection repository** window. By the custom plugins it is possible to configure multiple Exchange connections.

- o By Email Archive jobs with navigating to **Email Archive** → **Settings** → **System settings**, under **EWS settings** section. In Email Archive only single (either Exchange online O365 or On-premise) Exchange connection can be configured.



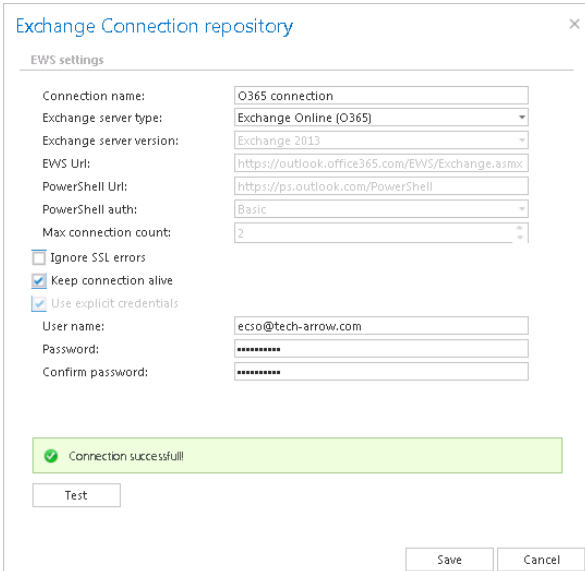
If you are configuring EWS connection to custom plugins, a **Connection name** must be also entered into the **Exchange connection repository** dialog. Under **Exchange server type** and **Exchange server version** select the type and version of the server, which is used by your email provider. Then enter the **EWS URL**, **PowerShell URL** and the **PowerShell authentication** into the dialog. These data must be requested from the email provider. Under **Max. connection count** option the user may define, how many parallel connections will be maintained by the system when connecting to PowerShell. It is also possible to disregard any SSL errors with checking the **Ignore SSL errors** checkbox.

Keep connection alive: If it is turned on, then the connection between contentACCESS and the Exchange server is cached, which increases the performance. If the Exchange is load balanced, some requests can land on another Exchange which causes errors in contentACCESS. In these cases unchecking the keep alive option will destroy the connection after each request and will rebuild it on the next request. The recommended settings of “keep alive” option are as follows:

- If you are communicating with **one Exchange server**: **turn it on** to increase the performance
- If you have a **load balanced Exchange environment** and there are **communication problems** with the Exchange: it is recommended to **turn it off**

If you want to use an explicit user for Exchange connection, check **Use explicit credentials** and enter the **User name** and **Password**. It is also possible to log in under service-credentials. In this case the

Use **explicit credentials** option must be unchecked. Run a test connection via **Test** button. Do not forget to save the changes.



Exchange Connection repository

EWS settings

Connection name: O365 connection

Exchange server type: Exchange Online (O365)

Exchange server version: Exchange 2013

EWS Url: https://outlook.office365.com/EWS/Exchange.asmx

PowerShell Url: https://ps.outlook.com/PowerShell

PowerShell auth: Basic

Max connection count: 2

Ignore SSL errors

Keep connection alive

Use explicit credentials

User name: ecso@tech-arrow.com

Password: *****

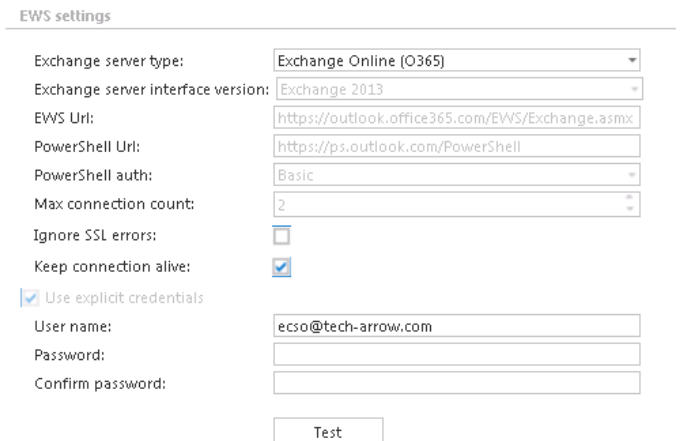
Confirm password: *****

Connection successful!

Test

Save Cancel

Exchange connection configurations for custom plugin type



EWS settings

Exchange server type: Exchange Online (O365)

Exchange server interface version: Exchange 2013

EWS Url: https://outlook.office365.com/EWS/Exchange.asmx

PowerShell Url: https://ps.outlook.com/PowerShell

PowerShell auth: Basic

Max connection count: 2

Ignore SSL errors

Keep connection alive

Use explicit credentials

User name: ecso@tech-arrow.com

Password:

Confirm password:

Test

Exchange connection configuration for Email Archive plugins

Important!!! The user set under *Exchange connections* must have a full access to the mailbox(es) that he/she would like to archive. Provisioning job requires to have “View-Only Organization Management” right on the Exchange. Role “Org Custom Apps” must be assigned for the EWS user if [Mail app](#) will be also used. This role enables an administrator to install and manage custom apps for the organization (read more about the role [here](#)).

Note: To speed up the email archiving processes, TECH-ARROW has implemented MAPI protocol for communication with the Exchange server. MAPI can be used only in case that the customer has an on premise Exchange server (Exchange 2013 or earlier), and uses contentACCESS with Email archive licence (by custom plugins MAPI cannot be selected). MAPI can be selected on the email archive/restore/recovery job’s configuration page only. By default, contentACCESS uses EWS settings to connect to the Exchange. **Some functionalities still require EWS settings. From this reason it is a must to configure EWS settings as well.**



Exchange performance settings – turning off the Exchange throttling policies

Throttling is a mechanism of Exchange Server to distribute the Exchange resources evenly between the users. It gives every user the chance to access their emails. The users are limited for example to send max 5 emails in a minute. If this limit is reached, the user is throttled, forcing the user to wait a minute until a new mail can be sent.

The archiving user requires more resources: it needs to access multiple mailboxes, process multiple messages. The standard throttling policy is not suitable for the archiving user (superuser).

If you are experiencing problems that may be caused by these policies, you can turn them off. The commands below are turning off any limitations for the archiving user, allowing to use as many Exchange resources as needed.

Exchange 2013

```
New-ThrottlingPolicy -Name CAPolicy -ThrottlingPolicyScope Organization

Set-ThrottlingPolicy CAPolicy -RCAMaxConcurrency Unlimited -EWSMaxConcurrency
Unlimited -EWSMaxSubscriptions Unlimited -CPAMaxConcurrency Unlimited -
EwsCutoffBalance Unlimited -EwsMaxBurst Unlimited -EwsRechargeRate Unlimited

Set-Mailbox "Administrator" -ThrottlingPolicy CAPolicy
```

Exchange 2010

```
New-ThrottlingPolicy -Name CAPolicy

Set-ThrottlingPolicy CAPolicy -RCAMaxConcurrency $null -RCAPercentTimeInAD
$null -RCAPercentTimeInCAS $null -RCAPercentTimeInMailboxRPC $null -
EWSMaxConcurrency $null -EWSPercentTimeInAD $null -EWSPercentTimeInCAS $null -
EWSPercentTimeInMailboxRPC $null -EWSMaxSubscriptions $null -
EWSFastSearchTimeoutInSeconds $null -EWSFindCountLimit $null -
CPAMaxConcurrency $null -CPAPercentTimeInCAS $null -CPAPercentTimeInMailboxRPC
$null -CPUStartPercent $null

Set-Mailbox "Administrator" -ThrottlingPolicy CAPolicy
```

There are 3 commands which must be run in PowerShell to apply the throttling for the superuser:

#1 New-ThrottlingPolicy



Creates a new policy, gives a name to the policy. It is created with default values.

#2 Set-ThrottlingPolicy

This changes the parameters of the policy – turning off any throttling for the contentACCESS user.

This list should be discussed with the customer, they might not allow all these options. This is a matter of support.

#3 Set-Mailbox

Assign the policy to the user.

The whole association can be verified by running this command: **Get-Mailbox “Administrator” | fl ThrottlingPolicy**

Importing contentACCESS configurations from files

contentACCESS allows to import data from files in the following available file formats: CSV, XML, Tab delimited files and Space delimited files. This simplifies adding of huge amount of data to different configuration sections in contentACCESS instead of entering each entry manually. There's an option to set if we want to overwrite the existing items, update or skip them. The user may also download a sample file to check, if the file that he wishes to import contains all necessary information (columns) for the given configuration section. Column names are displayed in the sample file if the “**First row is header**” option is turned on in the respective importer dialog.

Important!!! By importing **Email archive** and **Email restore** configuration sections it is highly recommended to define the mailbox folders to be imported with wildcards (e.g. %INBOX%). Wildcards ensure, that the given mailbox folder (e.g. the “INBOX” folder) will be processed regardless of the language settings of the mailbox. This is important mainly for companies who archive mailboxes using different languages.

After browsing the file to be uploaded and configuring the importer the file can be uploaded. After the initial upload the file's columns can be mapped to the importable entry's fields by dragging the column headers. When the mapping is finished the newly imported entries will be added to the configuration section.

contentACCESS allows to **import the folders to be archived/restored/recovered/excluded**:

1. to File archive, File restore, File recovery jobs

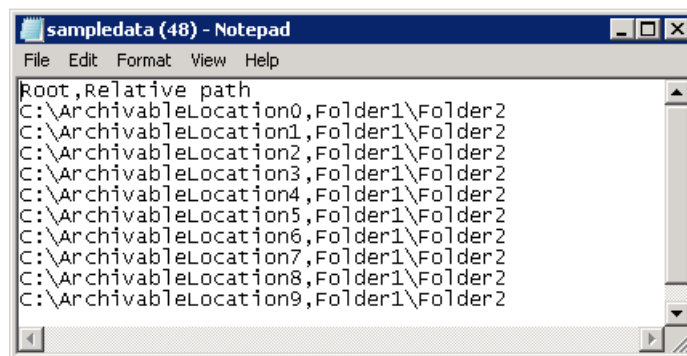
The import option is available on the respective job configuration page, under sections "Folders to process" and "Exclude folders":



An importable file with **Folders to process** contains the following rows:

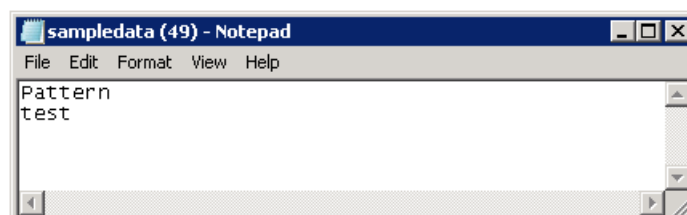
- **Root** - mandatory
- **Relative path** - nullable

Example in case of a CSV file:



An importable file with **Folders to exclude** contains the

- **Exclude pattern**, e.g. if folder called "test" needs to be excluded, the CSV will look like this:



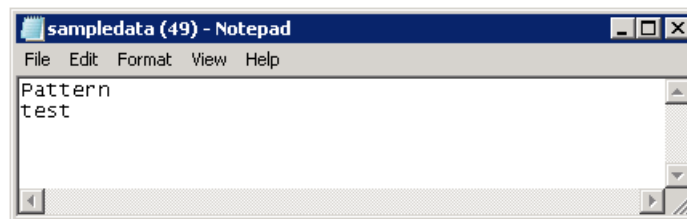
2. to Email archive, Email restore, Email recovery jobs

The import option is available on the respective job configuration page, under section “Exclude folders” and “Exclude addresses”:



An importable file with **Excludable folders** contains the

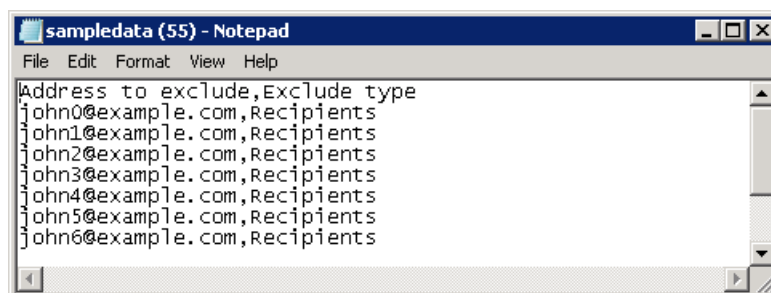
- **Exclude pattern**, e.g. if mailbox folder called “test” needs to be excluded, the CSV will look like this:



An importable file with **Exclude addresses** contains the:

- **Address(es) to include**
- **Exclude type(s)** – Sender/Recipients/All

Example in case of a CSV file:



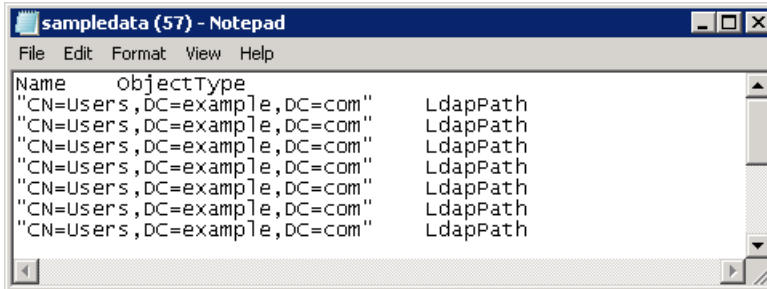
3. **File Archive provisioning job** (used to synchronize the users in the Active Directory with contentACCESS) also uses this feature to import the objects to be provisioned:



The importable file must include the:

- Name
- Object type

Example in case of a Tab delimited file:

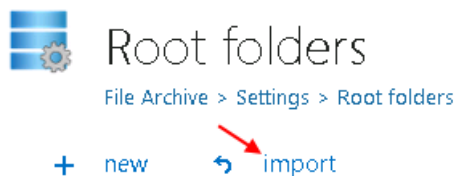


```

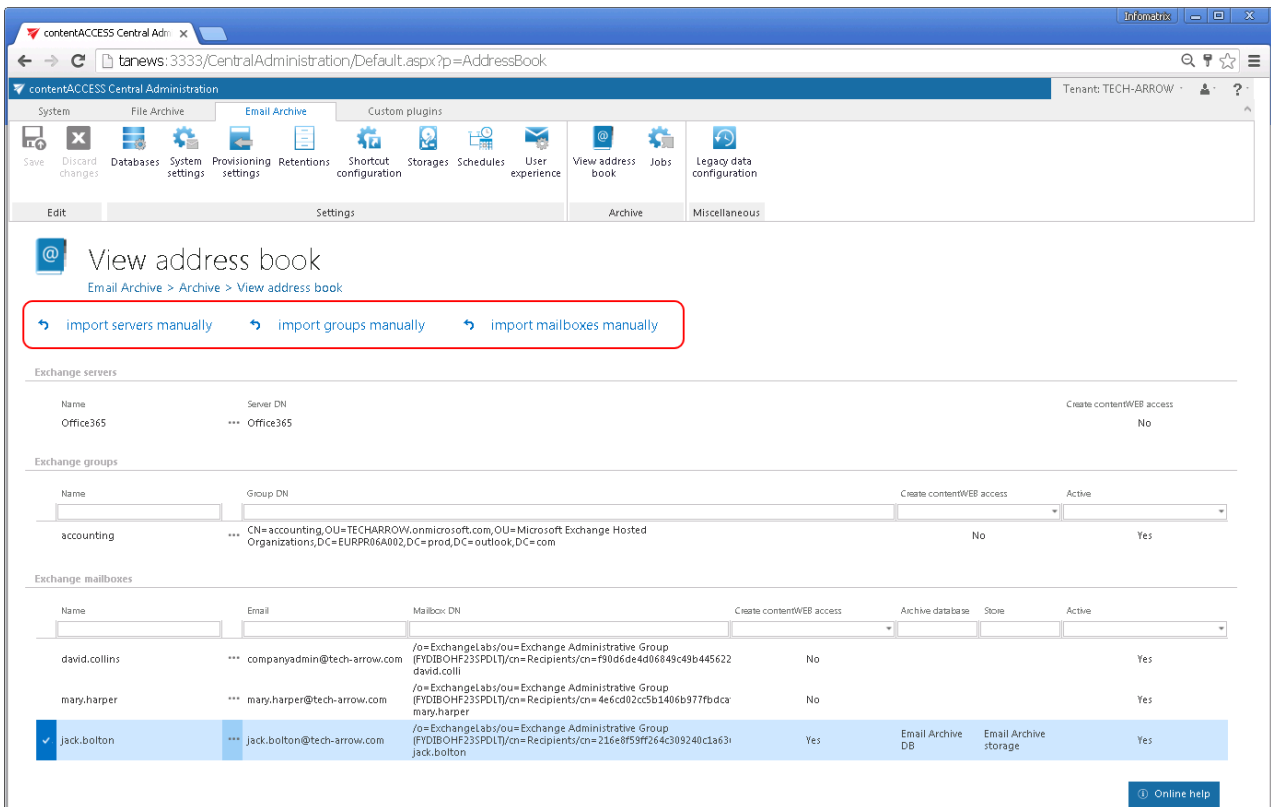
Name      ObjectType
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath
"CN=Users,DC=example,DC=com"    LdapPath

```

4. The **root folders** used in File Archive may be also imported into contentACCESS from files (read more [here](#)):

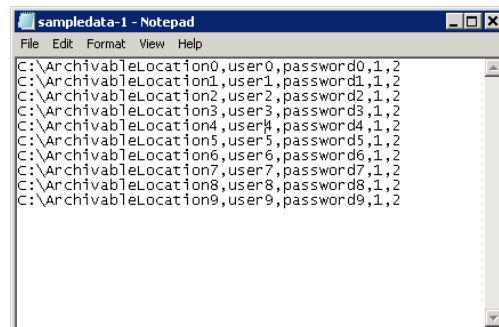
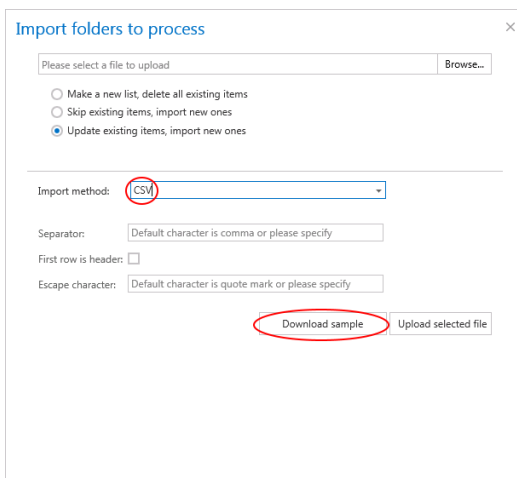


5. Servers/groups/mailboxes can be imported from files to the contentACCESS Address book using options **“Import servers manually”**/**“Import groups manually”**/**“Import mailboxes manually”** as well (read more [here](#)):

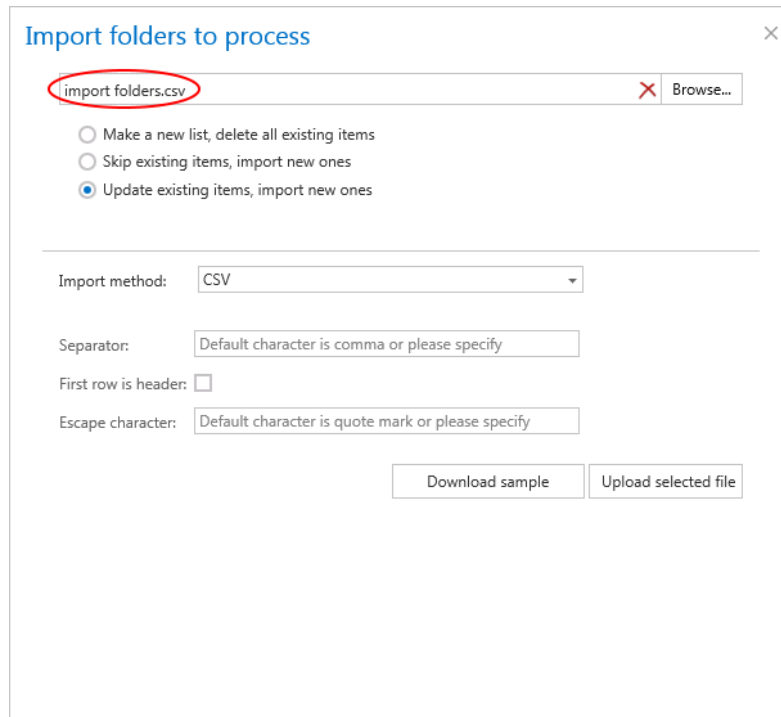


To import a file follow these steps:

- Click the **import** button on the respective configuration page. The importer dialog opens.
- From the **Import method** dropdown list select an import method to be applied (in our case CSV) and download a sample file using the **Download sample** option. Based on the sample file prepare the file to import and verify, if your prepared file contains all necessary information for the respective configuration section.



- Further click “**Browse**” and locate the file to be imported. (On the picture below we have selected a CSV file.)



Import folders to process [X]

import folders.csv [X] Browse...

Make a new list, delete all existing items
 Skip existing items, import new ones
 Update existing items, import new ones

Import method: CSV [v]

Separator: Default character is comma or please specify

First row is header:

Escape character: Default character is quote mark or please specify

Download sample Upload selected file

- **Further specify, how the selected file should be imported.** Choose one from the 3 available options (the available options are configuration specific, not all are available by all configurations):

Make a new list, delete all existing items – select this option to create a completely new list of items; any already set items will be deleted

Skip existing items, import new ones – select this option to add the new items from the list; while the already configured items will be skipped

Update existing items, import new ones – this option is available by importing root folders from files; it can be applied if the password has been changed and should be updated

- **Depending on the selected import method the user is further required to specify the following settings:**

In case of CSV:

Specify the CSV separator (in our case it is a comma). If the first row in the CSV file is a header, mark the respective checkbox. Further specify the escape character, if such exists in your CSV file (in our case quotation marks)



Import method:*

Separator:

First row is header:

Escape character:

In case of Tab delimited file

If the first row of the file is a header, mark the respective checkbox. Further specify the escape character, if such exists in the file.

Import method:*

Settings

First row is header:

Escape character:

In case of Space delimited file

If the first row of the file is a header, mark the respective checkbox. Further specify the escape character, if exists in the file.

Import method:*

Settings

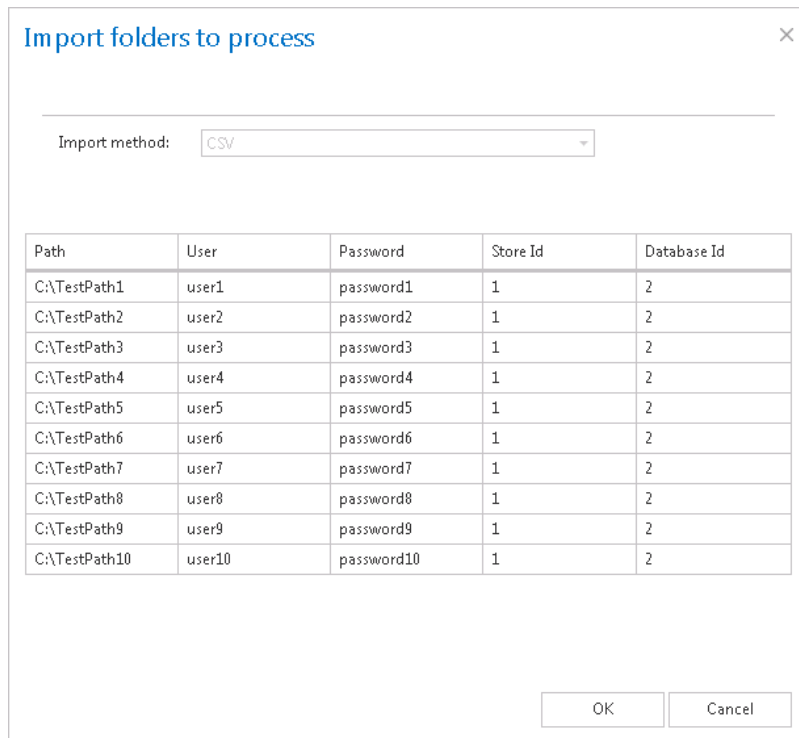
First row is header:

Escape character:*

In case that the file to be imported is an XML, no further settings are required.

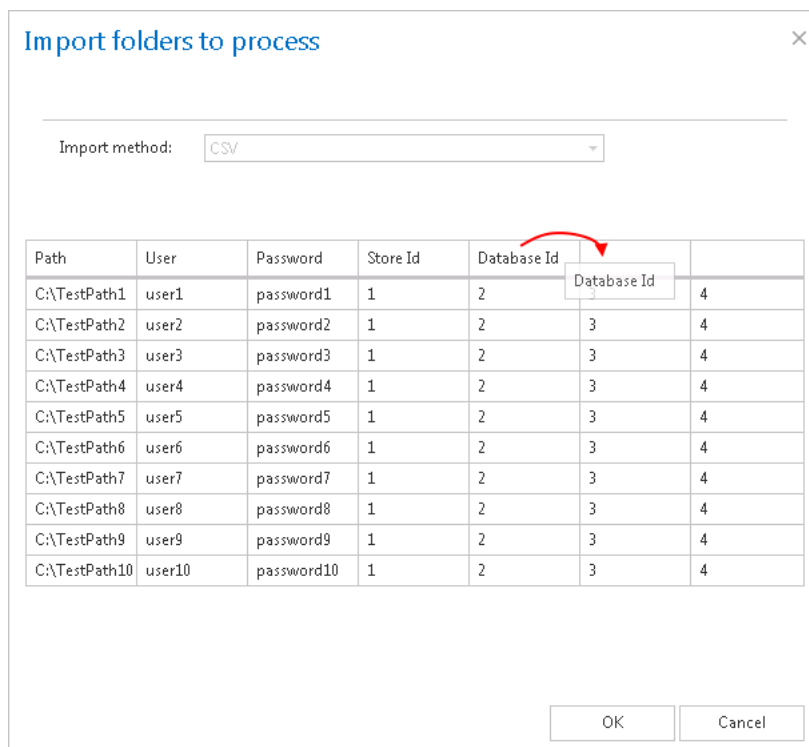
Import method:*

- Click **Upload selected file** to upload the file with the desired items.



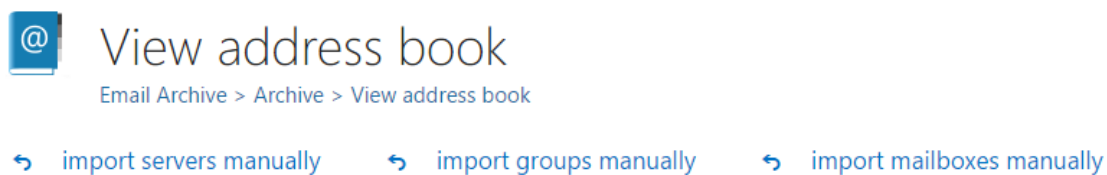
- Click “OK”. The list of imported items will be added to the respective section.

In a file containing multiple columns the user may specify, which column should be imported. Simply drag and drop the column header (on the picture below the **Database ID** header) over the respective column that should be imported.



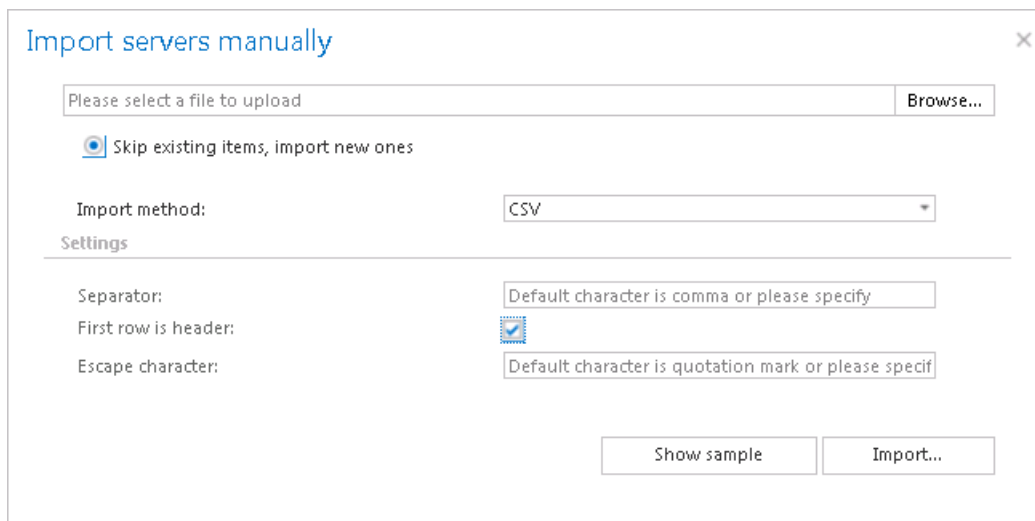
Manual import of Exchange servers/groups/mailboxes to the contentACCESS Address book

As already mentioned, contentACCESS allows to import servers, groups and mailboxes manually into the address book from CSV or XML files as well. The importing options are available on the **View address book** page of the Central administration (**Email Archive** tab → **Archive** group → **View address book** button).



How can you import?

In all cases you need to create a CSV file as in the sample file – select the import method in the dialog and click **Show sample**:



Nullable fields are not mandatory and can be left empty.

A row in the **CSV file with SERVERS** contains:

- **Name**
- **Server DN - nullable**
- **Settings – nullable**



Example: Office365,Office365,settings

If you do not have some of the nullable data, no problem. Simple add an empty character instead of them, e.g.: server: **Office365,,,**

```

sampledata (17) - Notepad
File Edit Format View Help
Name,Server DN,Settings
name0,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name1,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name2,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name3,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name4,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name5,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name6,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name7,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name8,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
name9,/O=TECH-ARROW/OU=Exchange Administrative Group (AAAAAAAAAAAAA)/cn=Configuration/cn=Servers/cn=EX2K10,"Version 14.3 (Build 123.4);Mailbox, ClientAccess, HubTransport"
    
```

A row in the csv file with **GROUPS** contains:

- Name
- Display name - nullable
- Sid
- Distinguished name - nullable
- When changed
- When created

```

sampledata (18) - Notepad
File Edit Format View Help
Name,Display name,Sid,Distinguished name,when changed,when created
name0,display name0,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name1,display name1,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name2,display name2,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name3,display name3,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name4,display name4,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name5,display name5,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name6,display name6,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name7,display name7,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name8,display name8,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
name9,display name9,S-1-1-11-1111111111-1111111111-1111,"CN=TestUsers,OU=Resource Groups,OU=TECH,DC=tech,DC=Internal",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000
    
```

A row in the csv file with **MAILBOXES** contains:

- Name
- Display name- nullable
- MailboxGuid
- User principal name
- Sam account name
- Primary smtp address
- Linked master account- nullable
- Is linked
- Is mailbox enabled
- Is resource
- Is shared
- Quota
- Use database quota defaults
- Archive GUID- nullable
- Email addresses - nullable
- Mailbox DN- nullable
- Recipient type- nullable
- Distinguished name



- When changed
- When created
- Associated user sid

```

sampledata (21) - Notepad
File Edit Format View Help
Name,DisplayName,MailboxGUID,user principal name,Sam account name,Primary smtp address,Linked master account,Is linked,Is mailbox enabled,Is resource,Is shared,Quota,Use database
quota defaults,Archive GUID,Email addresses,Mailbox DN,Recipient type,Distinguished name,When changed,When created,Associated user sid
name 0,display name 0,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser0@testdomain.com,testuser0,tu0@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser0@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test0,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
name 1,display name 1,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser1@testdomain.com,testuser1,tu1@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser1@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test1,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
name 2,display name 2,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser2@testdomain.com,testuser2,tu2@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser2@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test2,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
name 3,display name 3,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser3@testdomain.com,testuser3,tu3@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser3@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test3,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
name 4,display name 4,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser4@testdomain.com,testuser4,tu4@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser4@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test4,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
name 5,display name 5,fbf600a2-30f9-4efc-97cd-f9ec5d69c975,testuser5@testdomain.com,testuser5,tu5@testdomain.com,NT AUTHORITY
\SELF,False,False,False,False,0,true,SMTPT:testuser5@testdomain.com,/o=Tech-Arrow/ou=Exchange Administrative Group
(AAAAAAAAAAAAAAAAAA)/cn=Recipients/cn=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa-aaaaaa,UserMailbox,"CN=test5,CN=Users,DC=testdomain,DC=com",1900-01-01 00:00:00.000,2016-03-11 09:36:34.000,S-1
-2-21-1218810553-3938697923-1081931466-1090234
    
```

In case of mailbox import you need to set some common properties from the outside – there is an extra configuration available for the mailboxes import in the **Mailbox options** section of the importer dialog. Only values marked with “*” are mandatory. The mailbox options configurations allow to associate the importable mailboxes to an already provisioned/imported Exchange group, to an archive database and storage.

Import mailboxes manually ✕

Please select a file to upload Browse...

Skip existing items, import new ones

Mailbox options

Server *:

Add mailboxes to group:

Group: Note: Please start to type the group name

Associate with storage:

Associate with email archive database:

Exchange mailbox database *:

Exchange archive database:

Import method:

These properties will be set for all the imported mailboxes:

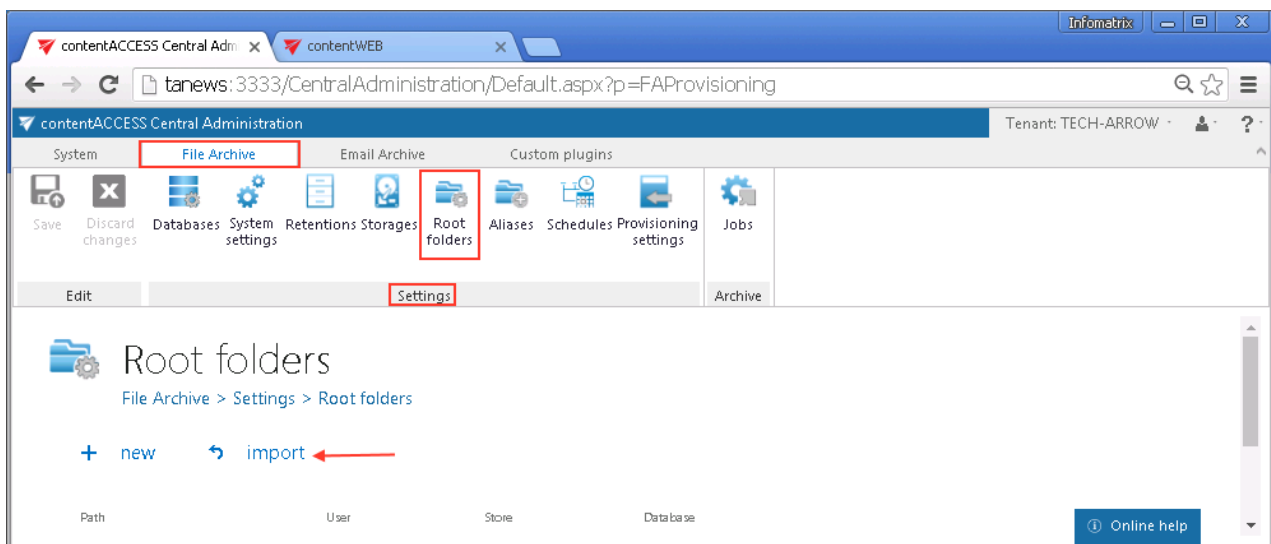
- **Server**
- **Group** – nullable if checkbox is not checked
- **Database** – nullable
- **Storage** - nullable

- Exchange database
- Archive database- nullable

The importer control uses the **skip existing items** method for importing.

Importing File Archive root folders to be archived

As mentioned already, contentACCESS allows to import root folders to be archived from files. The importing option is available on the **Root folders** page of the Central administration (**File Archive** tab → **Settings** group → **Root folders** button).



How can you import?

In all cases you need to create a CSV file as in the sample file – a) select the import method in the dialog, b) associate your importable root folder(s) with an archive storage and archive database and c) click **Show sample**:

Import folders to process ✕

Please select a file to upload Browse...

Make a new list, delete all existing items
 Skip existing items, import new ones
 Update existing items, import new ones

Mailbox options

Associate with storage:

Associate with file archive database:

Import method:

Settings

Separator:

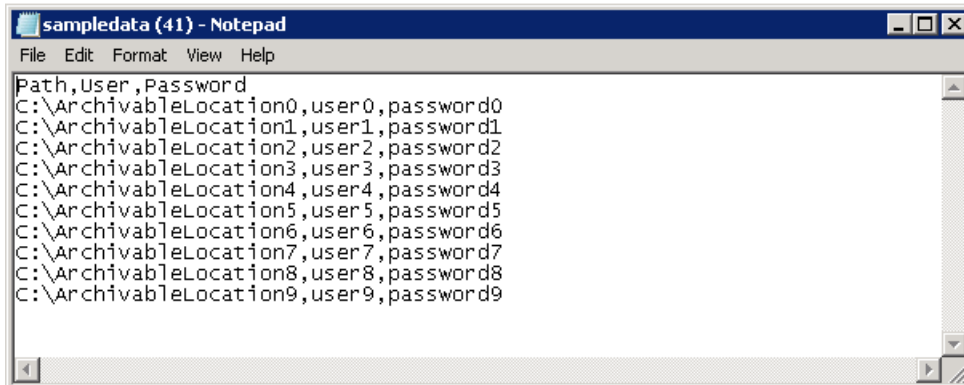
First row is header:

Escape character:

Show sample Import...

A row in the CSV file contains:

- **Root folder(s) to be archived**
- **User name**
- **Password**



```

sampledata (41) - Notepad
File Edit Format View Help
Path,User,Password
C:\ArchivableLocation0,user0,password0
C:\ArchivableLocation1,user1,password1
C:\ArchivableLocation2,user2,password2
C:\ArchivableLocation3,user3,password3
C:\ArchivableLocation4,user4,password4
C:\ArchivableLocation5,user5,password5
C:\ArchivableLocation6,user6,password6
C:\ArchivableLocation7,user7,password7
C:\ArchivableLocation8,user8,password8
C:\ArchivableLocation9,user9,password9
    
```

Finally browse for your file and import it to the root folders grid.

Note: One importable file can have only one archive database and archive storage associated. If you have multiple roots to be archived and you want to archive them to different archive databases and storages, you need to prepare multiple import files with different database and storage settings, and import them into contentACCESS one-by-one.

Creating new jobs in contentACCESS

contentACCESS is a modular product, and its functionality is extended with plugins, which are intended to manage certain data management processes. The licensed plugins can be also customized and fitted to ones needs. To achieve this, it is necessary to create **new jobs** from an available plugin.

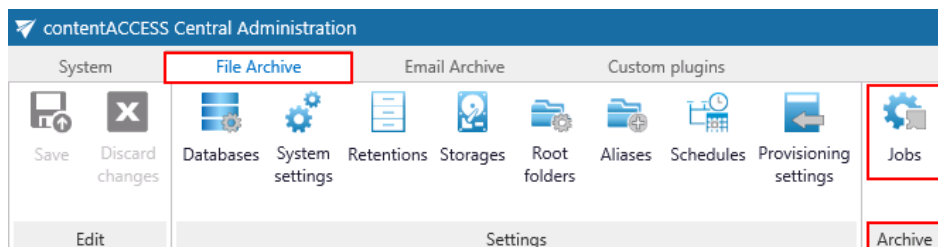
A new job is created from a type of a built-in plugin, which is characteristic with its own configuration settings (scheduling, retention, database, storage settings etc.). These configurations assign to the job certain tasks of how to process data. It is possible to create numberless jobs from the same type of a plugin. Each of them will have different configurations regarding the database where the processed metadata will be located, the storage where the processed binaries will be stored, the frequency of their running etc.

In contentACCESS plugins can be categorized into 3 main plugin groups:

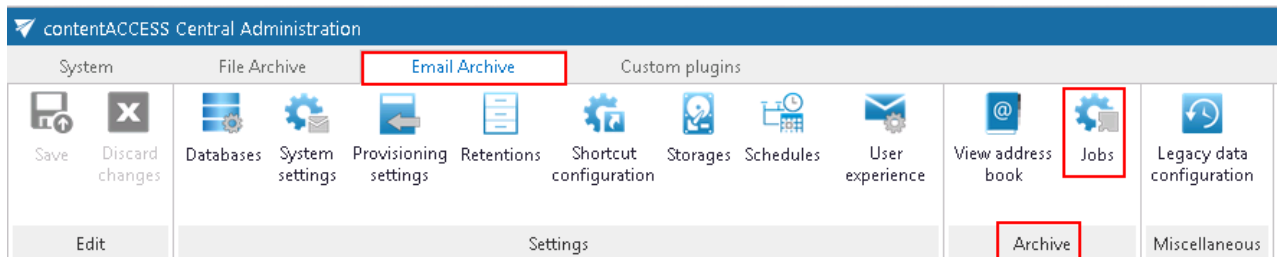
- **Email Archive** plugins,
- **File Archive** plugins,
- and **Custom plugins** (all licensed plugins except of Email Archive and File Archive plugins are accessible here).

To create a new job from any of these plugins, the administrator should open the **Jobs** page and here click on **+ new**. The **Jobs** page can be opened with navigating to the following button on the Central Administration ribbon:

- **File Archive** → **Archive** → **Jobs** (by the File Archive plugin type);



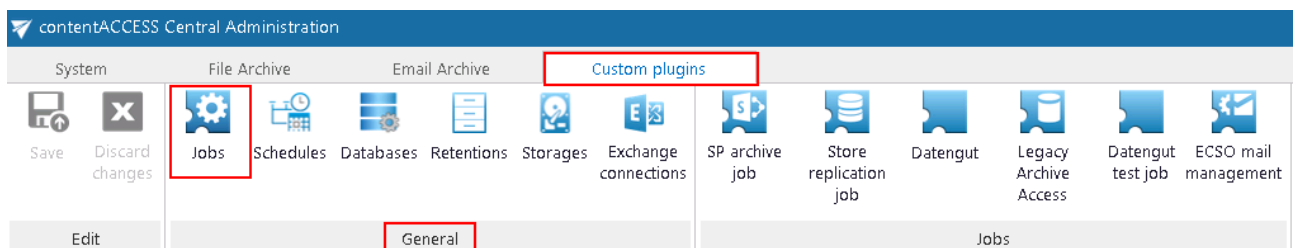
- **Email Archive → Archive → Jobs** (by the Email Archive plugin type);



Email Archive > Archive > Jobs

+ new refresh disable auto refresh

- **Custom plugins → General → Jobs** (by the Custom plugin type).



Custom plugins > General > Jobs

+ new refresh disable auto refresh

On the same page, the user may refresh the status information to all jobs. This can be done either manually with the **refresh** button, or by enabling/disabling automatic refresh with the **enable/disable auto refresh** button.

How to create new jobs: Open the **Add new job instance** dialog with a click on **+ new** on the **Jobs** page. Select an available plugin from the dropdown list (the list contains the licensed plugins only). Open the **Run on node** dropdown list, and select a node from the cluster, where the job should run. If you would not like to specify a node, select **Any available** from the list. Enter a **Display name** for your job. In the same window below you can read a very short description about the selected plugin type. Click on **Add**.



Add new job instance ✕

Available jobs:

Run on node:

Display name:

Description: Plugin for email archiving.

A pop-up window will ask you if you would like to configure the newly created job immediately.

The page at localhost:3333 says:

Would you like to configure this instance now?

With clicking on **OK** the Job's configuration page will be automatically loaded. If you would like to configure the job later on, click on **Cancel** in this window. In this case the job will be only added to the list of jobs on the **Jobs** page (but will not run as it is not configured yet).

Jobs

Email Archive > Archive > Jobs

+ new
↻ refresh
⏸ disable auto refresh

Filter:

ID	Display Name	Type	Status
114	EBA's invoice restore	*** Email restore	Idle
135	EBA's mailbox archive_shortcutting	*** Email archive	Idle

Further information about how to configure jobs in contentACCESS can be read in the respective subchapters.

Jobs' page, jobs' context menu

The **Jobs** page is accessible with a click on the **Jobs** button of the respective tab in the contentACCESS Central Administration ribbon (**Email Archive → Archive → Jobs**; **File Archive → Archive → Jobs**; **Custom plugins → General → Jobs**). Here you can view the list of all jobs created from a particular plugin type.



Email Archive > Archive > Jobs

+ new refresh disable auto refresh

Filter: Active jobs

ID	Display Name	Type	Status	Last Start	Last Duration	Progress	Summary	Next Start	Is active	Cluster node	Running on
114	EBA's invoice restore	Email restore	Idle	2 weeks ago	2 minutes	100 %	1 mailboxes processed 93 emails processed (1 failed)	-	Yes	TECHNB002 [192.168.190.20]	-
135	EBA's mailbox archive_shortcutting	Email archive	Running	51 seconds ago	50 seconds	0 %	0 mailboxes processed 8 emails processed	-	Yes	Any available	TANEWS [192.168.190.63]
138	Mailbox move for edit.balazsy@tech-arrow.com	Mailbox move	Idle	-	-	-	-	-	Yes	TECHNB002 [192.168.190.20]	-
142	ECSO's mailbox recovery	Email recovery	Idle	-	-	-	-	-	Yes	Any available	-

The grid contains the following columns. Each instance has an **ID** number, a **Display name** a **Type** and a **Status**. If the job is in *Idle* status, this means that it has completed the task, it is not running.

Next columns hold certain information about the **Last start**, **Last duration** and **Next start** of the job. The **Progress** column informs about the volume of the already processed items, while **Summary** gives a general overview about the processed/skipped/failed items. In **Is active** column can be viewed, if a job is active, or it has been deactivated. Active jobs will run based on the schedule; the data that they are processing are accessible. Inactive (deactivated) jobs are not running (nor can be manually started); the data that they have processed are still accessible. In the **Cluster node** column we can check the node, where the selected job can run. The **Running on** column informs the user about the node, where the job is currently running. On the screenshot above we can see, that **EBA's mailbox archive_shortcutting** job can be run on any available node, and is currently running on TANEWS.

ID	Display Name	Type	Status	Last Start	Last Duration	Progress	Summary	Next Start	Is active	Cluster node	Running on
114	EBA's invoice restore	Email restore	Idle	5 weeks ago	3 seconds	100 %	1 mailboxes processed 8 emails processed (1 failed)	-	Yes	TANEWS [192.168.190.63]	-
135	EBA's mailbox archive_shortcutting	Email archive	Running	1 second ago	-	0 %	-	-	Yes	TANEWS [192.168.190.63]	TANEWS [192.168.190.63]
142	ECSO's mailbox recovery	Email recovery	Idle	5 weeks ago	2 minutes	100 %	1 entities processed 47 items processed (42 skipped)	Never	Yes	TANEWS [192.168.190.63]	-
143	Mailbox move for edit.balazsy@tech-arrow.com	Mailbox move	Idle	-	-	0 %	-	-	Yes	TANEWS [192.168.190.63]	-

Any operations to a job can be done from the job context menu, with selecting the corresponding job from the list and left click on the ellipses (...). Now we select **EBA's mailbox archive_shortcutting** job from the list. With the help of this job we will demonstrate how to handle with jobs from the context menu.

ID	Display Name	Type	Status	Last Start	Last Duration	Progress	Summary	Next Start	Is active	Cluster node	Running on
114	EBA's invoice restore	Email restore	Idle	2 weeks ago	2 minutes	100 %	1 mailboxes processed 93 emails processed (1 failed)	Never	Yes	TECHNB002 [192.168.190.20]	-
135	EBA's mailbox archive_shortcutting	Email archive	Idle	20 minutes ago	14 seconds	100 %	1 mailboxes processed 2 emails processed	in 5 hours	Yes	Any available	-
138	Mailbox move for edit.balazsy@tech-arrow.com	Mailbox move	Idle	-	-	-	-	-	Yes	TECHNB002 [192.168.190.20]	-
142	ECSO's mailbox recovery	Email recovery	Idle	-	-	-	-	-	Yes	Any available	-

- Start
- Stop
- Configure
- Show last logs
- Edit
- Deactivate
- Delete

The context menu of a job contains the following options:

- o **Start:** with a click on “Start” the administrator can start the job running manually;
- o **Stop:** with a click on “Stop” the administrator stops the running of the selected job;

- **Configure:** required values can be configured for the job on its configuration page, which can be opened using this option.
- **Show last logs:** with selecting this option the user will be redirected to the monitoring page, where the last running of the selected job will be preselected, and the corresponding events will be displayed in the table of events;

#	Start date	End date	Date	Title	Description	Job	
Job: EBA's mailbox archive_shortcutting							
<input checked="" type="checkbox"/>	9/28/2015 11:05 AM	9/28/2015 11:05 AM	9/28/2015 11:05 AM	Plugin was finished successfully	Plugin.EmailArchive	EBA's mailbox archive_shortcutting	
<input type="checkbox"/>	9/28/2015 10:52 AM	9/28/2015 10:54 AM	1 mailbox processed 2 emails processed				
<input type="checkbox"/>	9/28/2015 10:41 AM	9/28/2015 10:42 AM	9/28/2015 11:05 AM	Mailbox processing information	Processing was finished	EBA's mailbox archive_shortcutting	
<input type="checkbox"/>	9/28/2015 10:41 AM	9/28/2015 10:41 AM	9/28/2015 11:05 AM	Mailbox processing information	Mailbox processing finished. Mailbox: 'edit.balazy'. Total mails: 2 Mails processed: 2 Failed mails: 0 Skipped mails: 0	EBA's mailbox archive_shortcutting	
<input type="checkbox"/>	9/28/2015 10:40 AM	9/28/2015 10:40 AM	9/28/2015 11:05 AM	Mailbox processing information	Abort signal received	EBA's mailbox archive_shortcutting	
<input type="checkbox"/>	9/22/2015 10:53 AM	9/22/2015 1:46 PM	9/28/2015 11:05 AM	Mailbox processing information	Processing was started. Number of mailboxes: 1.	EBA's mailbox archive_shortcutting	
<input type="checkbox"/>	9/22/2015 10:51 AM	9/22/2015 10:51 AM	9/28/2015 11:05 AM	Processing was started	Plugin.EmailArchive	EBA's mailbox archive_shortcutting	

- **Edit:** with a click on this option the **Edit job** dialog opens, where the user can:

✓ rename the job;

✓ change the node, where the job can be run.

Edit job

Display Name:

Cluster node:

TECHNB0002 [192.168.190.20]

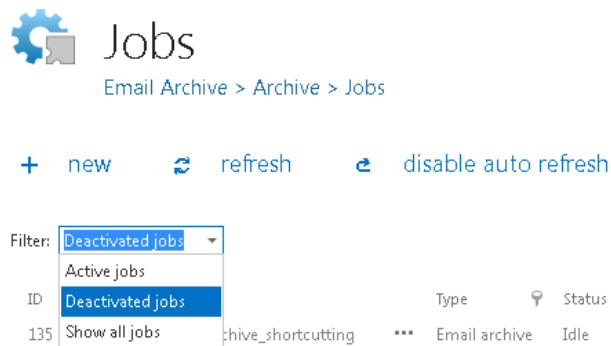
TANEWS [192.168.190.63]

- **Deactivate:** it is recommended to deactivate jobs which are not in use for a longer time, but very probably will be used in the future (e.g. restore or recovery jobs). With selecting this option the administrator does not permanently delete the job from the list. The deactivated job will be hidden only and it will not run according to the schedule (nor can be manually started).
- **Delete:** with this option the administrator can permanently delete selected jobs from the list; the processed data by some plugin types will not be accessible through the standard interfaces (data processed by file archive jobs will not be accessible if all file archive jobs wrote the data into the same database, and all of them were deleted; if only one job remained which wrote data into this particular database, then all data processed by all file archive jobs will be accessible. In case of email archive jobs the data will be still accessible, even the jobs have been deleted.)

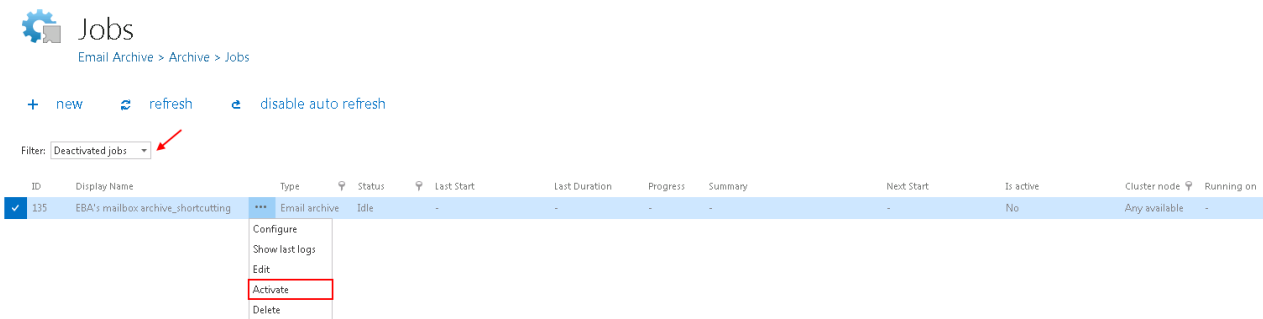


Filtration between active/inactive jobs

A job can be either active (an active job will be started according to the configured schedule, or can be started manually), or its status may be set to deactivated (if the administrated sets a job to deactivated, it cannot be started neither by the scheduler, nor manually). On the page of **Jobs** the user can filter among **Active/Deactivated jobs**, or he can also choose to display all jobs in the list (**Show all jobs**).

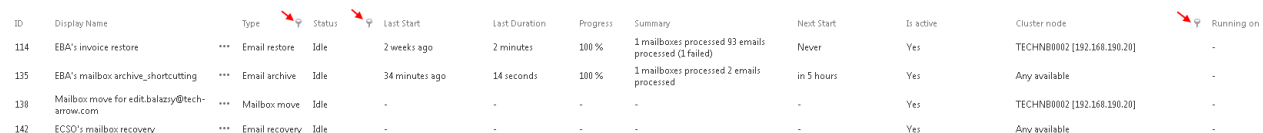


If a job has been deactivated, it can be restored to the list of active jobs again. Select the job, open its context menu and choose **Activate** from the list:



Sorting between jobs


The jobs can be also sorted based on the type, status or cluster nodes where they are running. Click on the funnel () icon located next to the particular column in the grid:



Available operations from the status bar of the job

With a double click on the selected job in the list of jobs you open the configuration page to the job. On a blue background you will see the status bar of the job.



With the arrows mark () at the right side of the status bar the user may collapse or expand the progress information about the job's running. The status bar's last state is always stored, and the last state will be opened by navigating to the page again. The status bar of a job contains the following status bar buttons:

- **start immediately/stop:** with a click on this option the administrator can start/stop the job running manually;
- **refresh:** click on this option and the status bar information about the progress of the job will be refreshed;
- **disable/enable auto refresh:** turn on/off the auto refresh of progress bar information (if enabled, the information will be refreshed in every 5 seconds)
- **deactivate/activate job:** use “deactivate” button if you want to temporarily cancel the job; use “activate” button if you want to restore the job among the active jobs;
- **logs:** with selecting this option the user will be redirected on the monitoring page, where the last running of the selected job will be preselected, and the corresponding events will be displayed in the table of events. Use this option for troubleshooting if any failure occurred during the job running;
- **edit control button** is used to change the name of the job and to specify the node on which the job should run.

In the following chapters we will learn how to configure and use the contentACCESS File Archive, Email Archive, SharePoint archive, Email management, Store replication, Sharing and Email synchronization jobs.

File Archive

With the help of File system archive jobs it is possible to archive data located either in local file systems or on network shares (UNC paths). Time for which the documents are available in the archive is set via retention categories. The File Archive database and storage is always assigned to a root

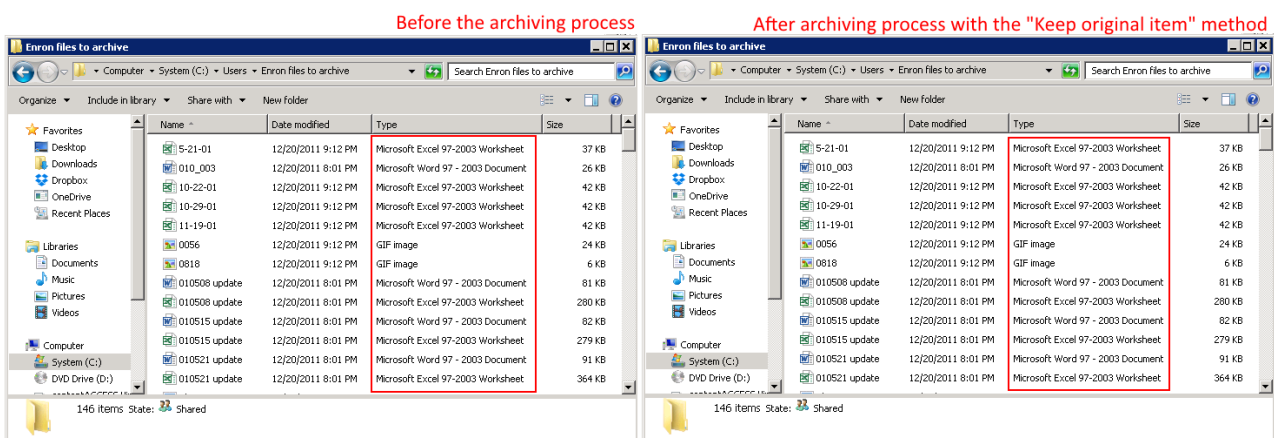
folder (chapter [File Archive settings](#)). This prevents the user from archiving the same root to multiple databases/storages and having troubles with the file retrieve.

The archived files can be viewed either in contentWEB (more information [here](#)), or in the shared folders on virtual (more information [here](#)). It is also possible to restore the archived files from shortcuts, or to recover them, if the original was deleted from the file system.

Introduction to File system archive

There are 4 file system job types available in contentACCESS: 1) **File system archive** job was meant to archive documents from the selected location into a selected storage. Archiving can be done in multiple ways. The administrator selects the archiving strategy and decides, if the archived file is kept in the file location, it is replaced with shortcuts or is deleted from there. The pictures below show the contents of the original file location before and after the archiving process;

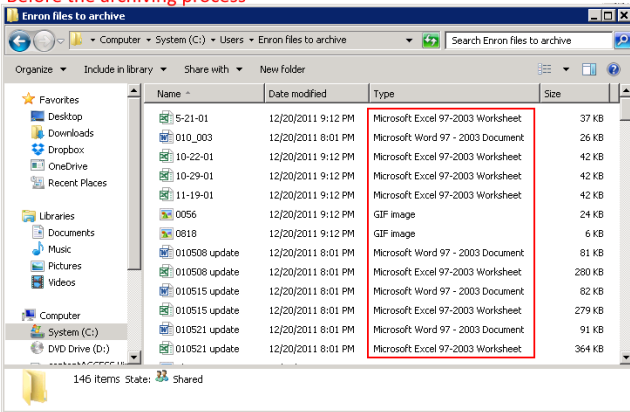
- a) With the “Keep original item” method the original file is kept in its original location (recommended archive method for files younger than 1 year):



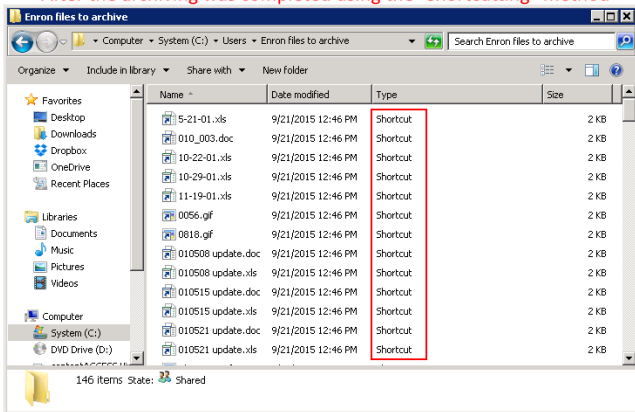
- b) The archived items can be also replaced with a shortcut, thus not taking up so much space on the file-server (disk), yet files are available for working with them as usual. In this case the “Create shortcut from original item” method should be used. This is the recommended archive method for files older than 1 year and younger than 2 years:



Before the archiving process

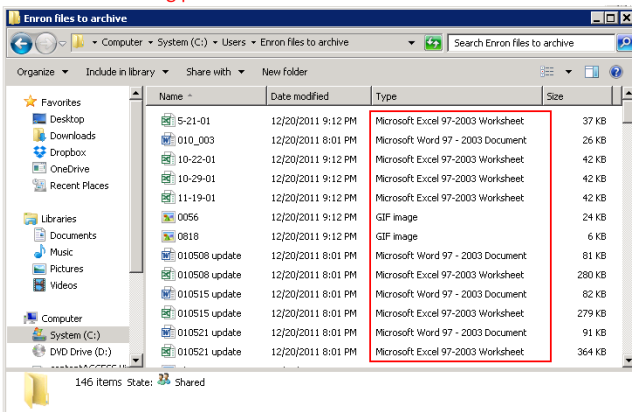


After the archiving was completed using the "shortcutting" method

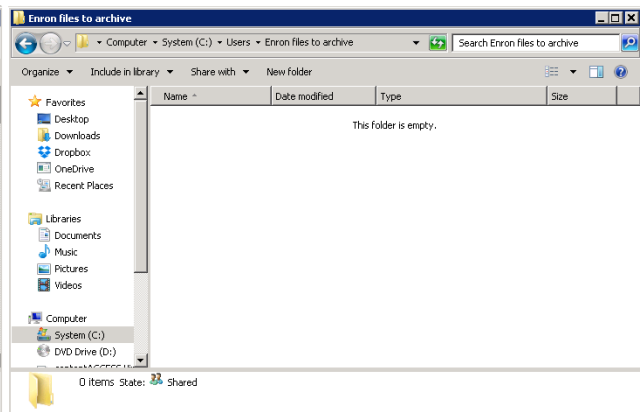


c) The archived item can be also deleted from its current location, in this case the “Delete original” method should be used (recommended archive method for files older than 2 years):

Before the archiving process



After the archiving process using the "Delete original" method is finished



It depends on a typical use case which method is the most advisable to use. Customers use the “Keep” original method with versioning, when they are working on long-term projects, and their files are modified too often. E.g. if an architect is working on a project and would like to have a version from his project each day, then he may archive his project each day and create versions from it. This protects him from losing his work that he worked on for a longer time (e.g. if a hardware problem occurs). Shortcutting is used by older files, which still may be used, so the user would not like to delete them from the file location yet (e.g. files older younger than 2 years). Those items, which are not in use any more - but must be retrievable from the archive during the retention time required by the law - should be deleted from its location when archived. In this case, it is advisable to use the “Delete original item” method.

2) A File system restore job is used to restore the already archived items from shortcuts from the storage back into the original location.



3) **File system recovery** may be used to recover deleted items/folders/recursive folder structure if they have been deleted from its original location. It might be very useful if any archived item or folder has been deleted by accident, or deletion was caused by a technical failure etc. The user may recover either the original file or the shortcut.

4) **Remote shortcutting** job is a special job type, which can be used with the file archive jobs together. Use this job if you have several remote locations synchronized with your central data center. contentACCESS is installed on the data center, and continuously archives the files already synchronized with the data center. By the synchronization process the files are copied to the data center. So the archiving itself is done by a standard File system archive job; the Remote shortcutting job is used to create shortcuts on the remote locations.

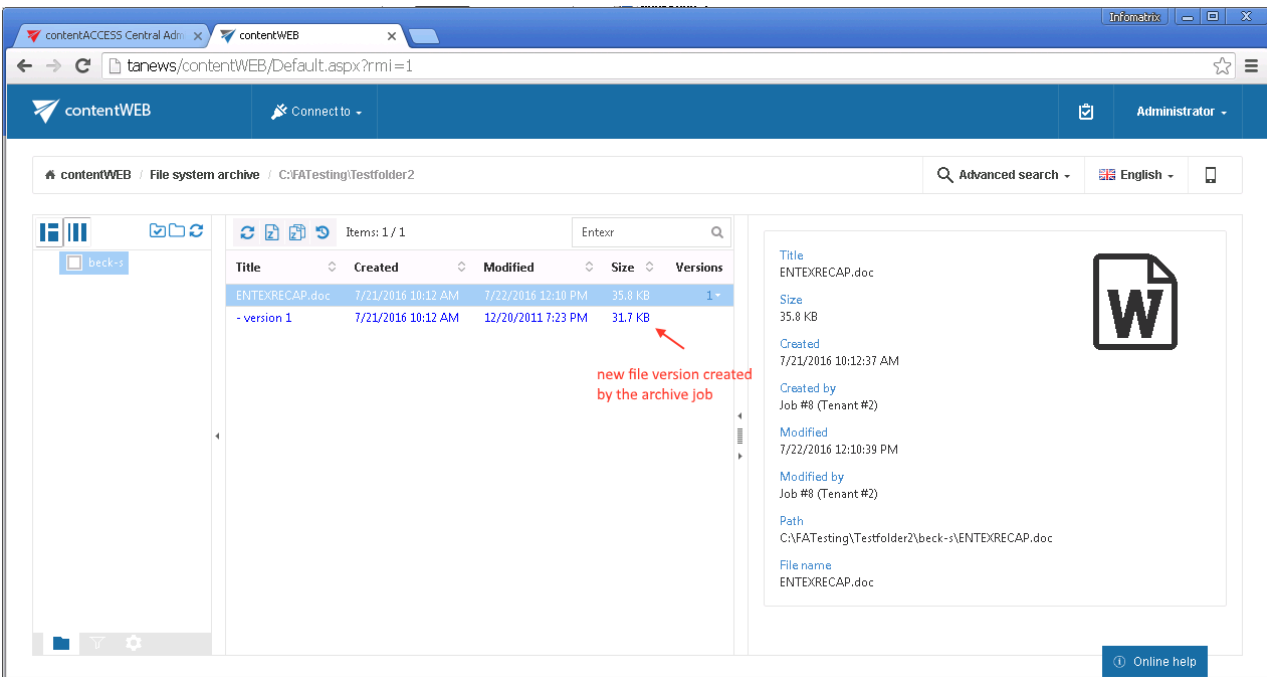
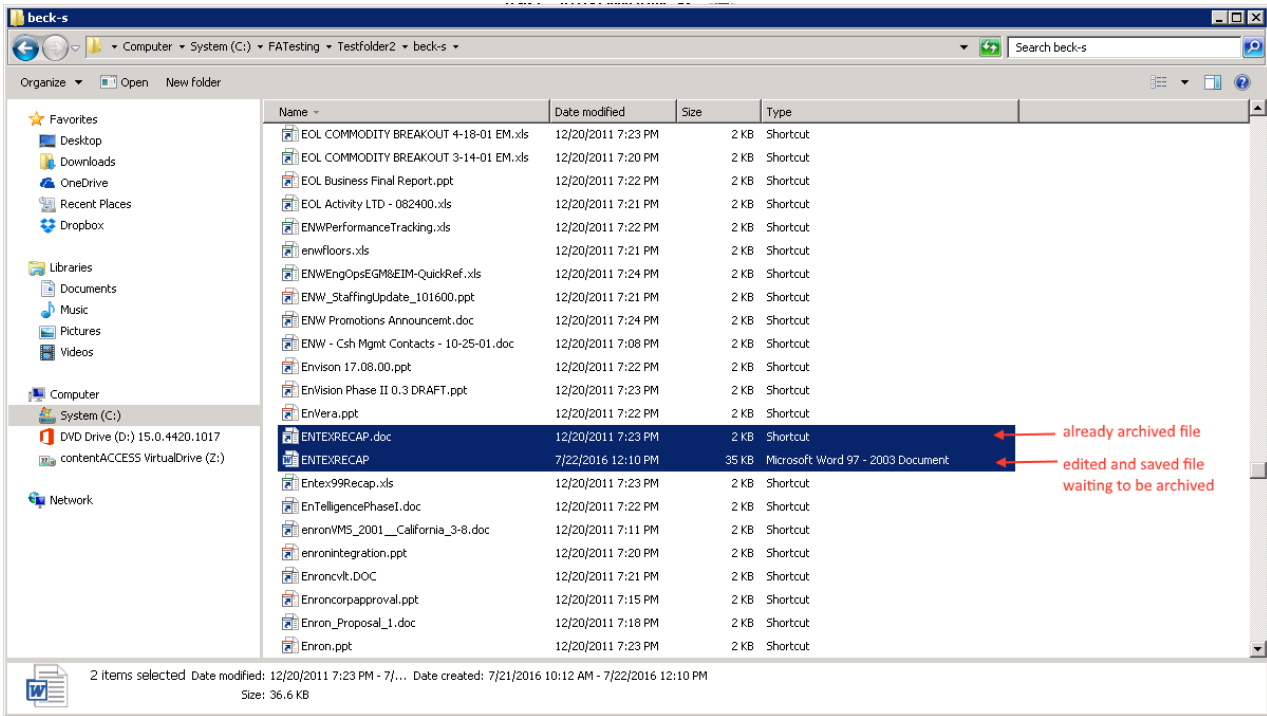
Use this method, if you would like to run the archiving process in a central data center, and replace the remote files with shortcuts if they are not in use. If you have multiple remote shares to archive and you need to speed up the archiving process and save bandwidth, this is the right solution for you.

Editing of already archived files, file versions in File system archive

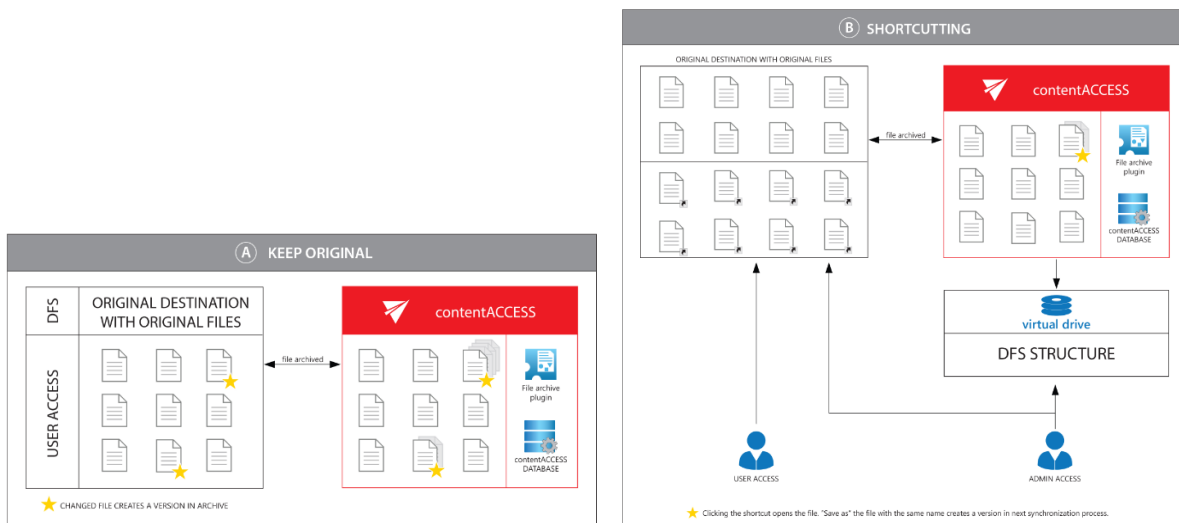
You can edit an already archived file by opening the original file (if was archived with the *Keep original method*) or the shortcut to it (LNK, if it was archived with the *Shortcutting method*) in the original file location or through the Virtual drive.

- if the file **was not shortcutted** (i.e. the already archived file is kept in the original file location), then you can open the file in a standard way, edit it and save it. The next archive job will create a version to this file in the archive.
- if the file is **shortcutted** (i.e. was archived using shortcuts) and you open the file through the shortcut, then you will open the file in read-only mode (as it is opened directly from the archive). You can edit it, but then you need to save it to the original file location with the same name (1st screenshot below). Then the next archive job will point it out, will create a new version, will delete the original file, and will leave the shortcut there, which will point to the new version.

Note: If the archived file is opened and edited through the Virtual drive, it must be saved to the original file location, from where it was archived.



The versioning feature might be very useful for users, who are working on long-term projects and would like to protect themselves from losing their data. In such cases, it is recommended to run an archive job on the project each day, and save the current state (version) of the file/project into the archive.



Screenshot A: Versions created when keeping the original item Screenshot B: Versions created when using shortcuts

Synchronization of rights to a folder/file

The synchronization of rights is managed by the File Archive job.

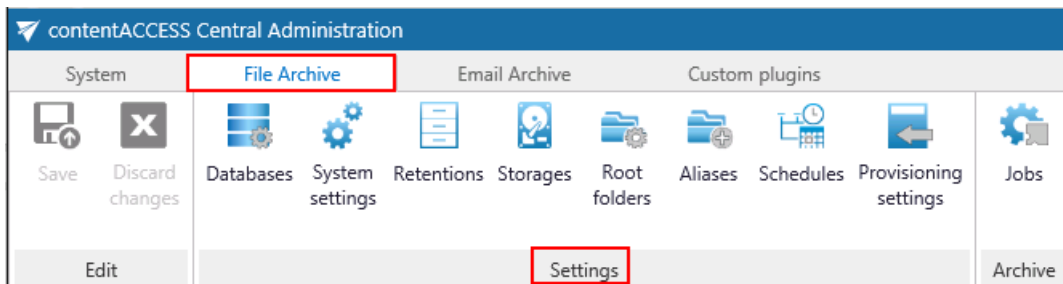
The rights **to a folder** are synchronized permanently by the File archive job; the rights **to a file** are synchronized by the job only in case that a new version to the respective file has been created.

File Archive settings

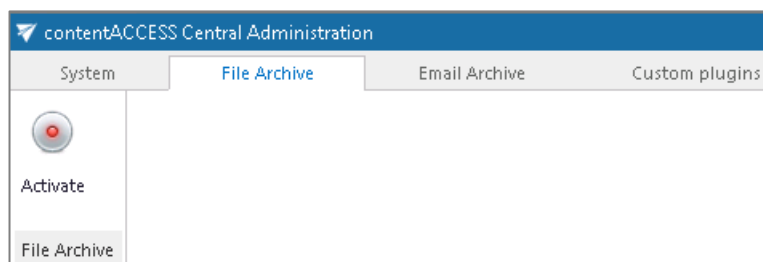
To be able to use the contentACCESS File Archive the following settings are mandatory in the Central Administration:

- 1) The virtual drive must be installed and configured (configurable here: **System** tab → **Client applications** → **Virtual drive configurations**). For more information refer to [Virtual drive](#).
- 2) The LDAP settings must be configured (configurable here: **System** → **Services** → **System**, section **Active directory integration settings**). This will be used by contentWEB to evaluate user access permissions to folders/files. For more information refer to [System](#).
- 3) Settings available in **File Archive** → **Settings** need to be configured. The configuration logic is from left to right. By following this logic everything will be configured for the next step. These settings will be described below in this chapter.

Note: Aliases are used by the *Remote shortcutting job* only. If you do not use a *Remote shortcutting job*, you can skip [Configuring aliases](#).



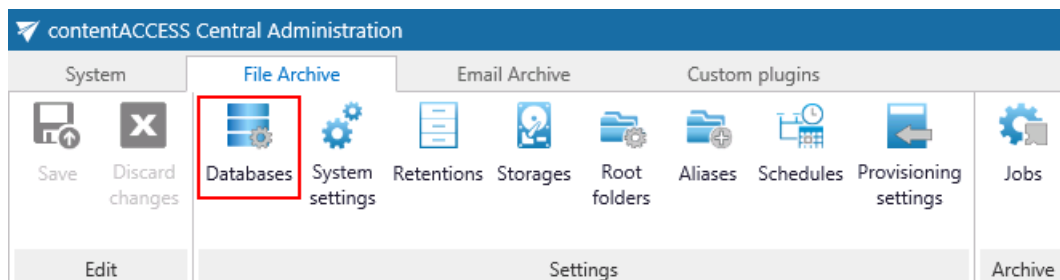
When starting to configure File Archive for the first time, the user is required to activate the File Archive provisioning job. Open the File Archive tab on the ribbon and click on the “Activate” button:



After successful activation the **Settings** of the File Archive is displayed. The tab (already mentioned in step 3) above) features the following configuration options:

Databases

The administrator must set here the database where File Archive will store the metadata; to create such database, refer to chapter [Databases](#) of this guide

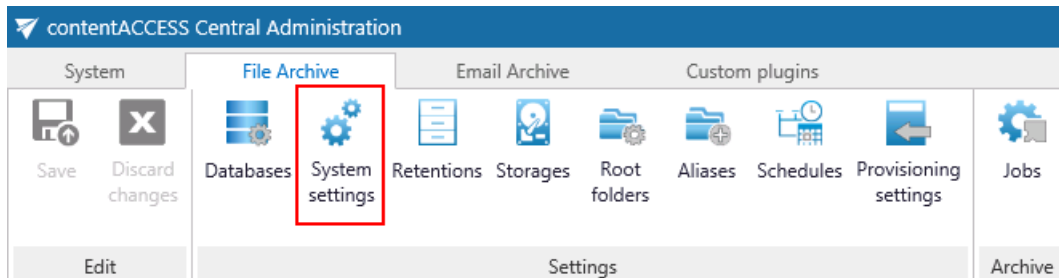


System settings

The main system database for the File Archive is selected on this page. All the root folders (and its settings) that will be applied in the archive jobs are kept in this database.

Select the database connection to be applied from the dropdown list (“FileSystemDB” in our use case) and save your settings.

Note: A database connection already configured on the **Databases** page (File Archive → Settings → Databases) can be selected as a system database.



System settings

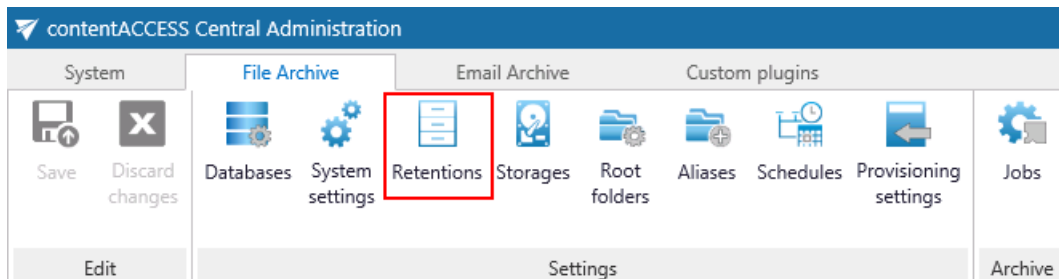
File Archive > Settings > System settings

Database settings

Database connection: FileSystemDB Change ✔

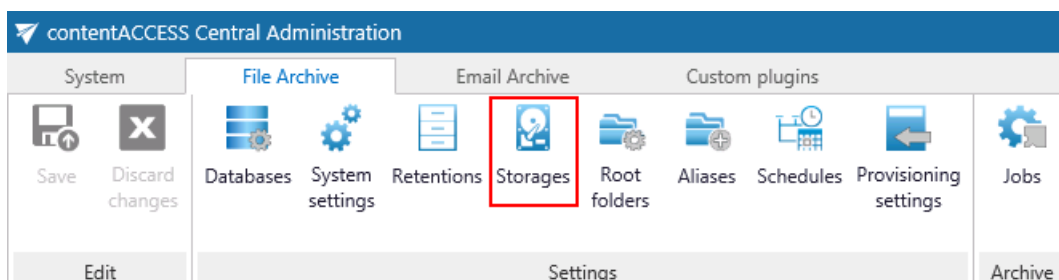
Retentions

The time period of storing the data is specified on this page; for more information how to create retentions to be applied refer to chapter [Retentions](#) of this guide



Storages

The administrator must set here the File archive storage for the binaries; for detailed information how to create a new storage connection refer to chapter [Storages](#) of this guide



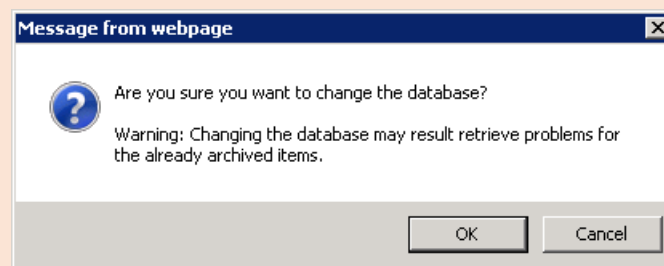
Root folders

The root folder paths to be applied in a file archive job is specified in this section. **The root folder defines the start point (start point = e.g. “c:\”) of the archive process.** A root folder set here is selected for an archive job on the given job’s configuration page. The relative path (e.g. folder “Test files” if directory “c:\Test files” will be archived) can be set in the given job’s configuration section further on.

The root folders and their settings are written to the file system database defined in section **System settings** above (**File Archive → Settings → System settings**). A connection that already exists in the system database cannot be specified twice. E.g. if “[\\tanews\TECH-ARROW files to archive](#)” is already set, then “[\\tanews\TECH-ARROW files to archive\contracts](#)” cannot be added to the root folder’s list. This feature prevents the users from archiving the same folder into two different databases/storages. If the user wants to add a root which already exists in the system database, he will be prompted about this.

A root folder always must have an assigned database and a storage. The job which archives (restores/recovers) this root will use this database and storage.

Hint: It is not recommended to change the database and storage connections already associated with a root folder. Changing the database will lead to problems when trying to retrieve the already archived items, because some of your data will be saved in the originally set database, and another part of data in the newly set database. The same retrieve problem might occur with changing the storage, too. The application warns the user about it:

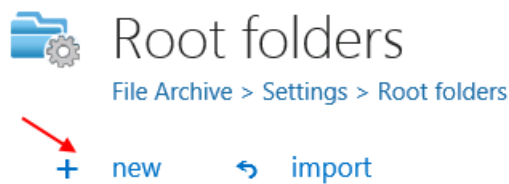
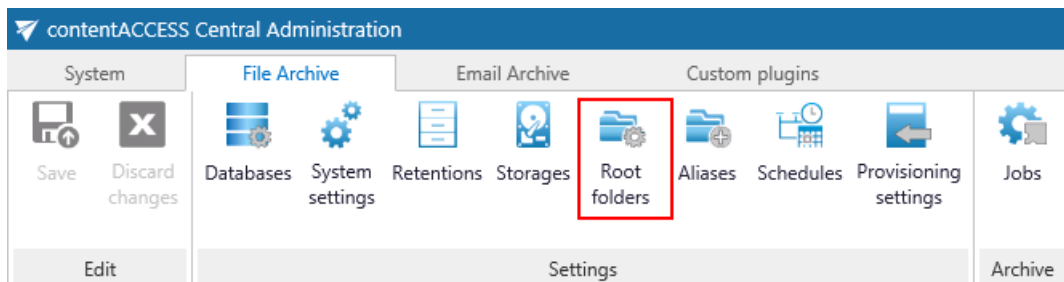


However, the database and storage assigned to a root can be changed using the “Edit” menu item in the root context menu. Do not use this option unless it is very necessary.

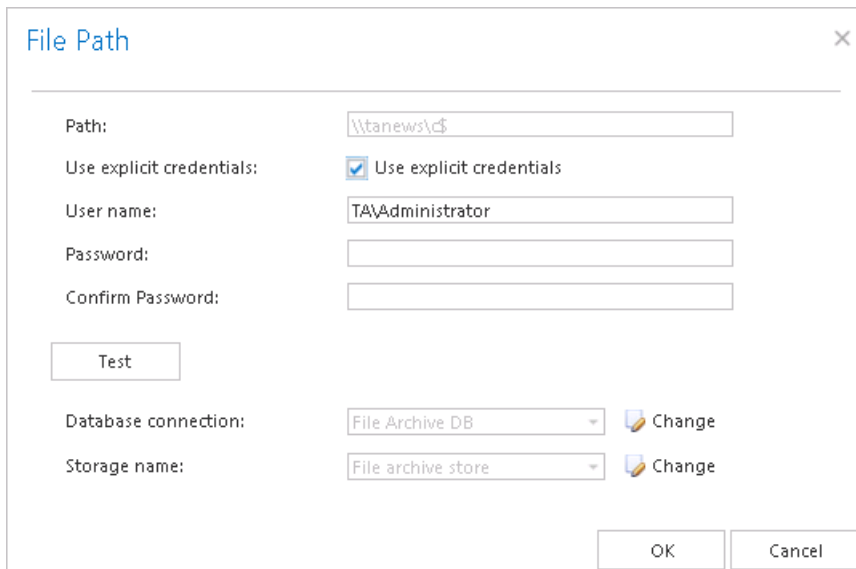
The root folders may be either

- a) imported using the “import” button (refer to chapter [Importing contentACCESS configurations from files](#)) or
- b) added to the list using the “new” button.

Click “new” to manually add a root folder that should be processed by a job.



The **File Path** dialog opens. Enter the file path that should be applied and the applicable user credentials. **The File Archive database and storage must be associated with this specific root folder directly in this dialog.** It is NOT recommended to change the database and storage that is already used, because it will lead to file retrieve problems (as mentioned in the hint above). Use the “Change” option only in case if such change is really necessary (e.g. if you haven’t archived the root yet).



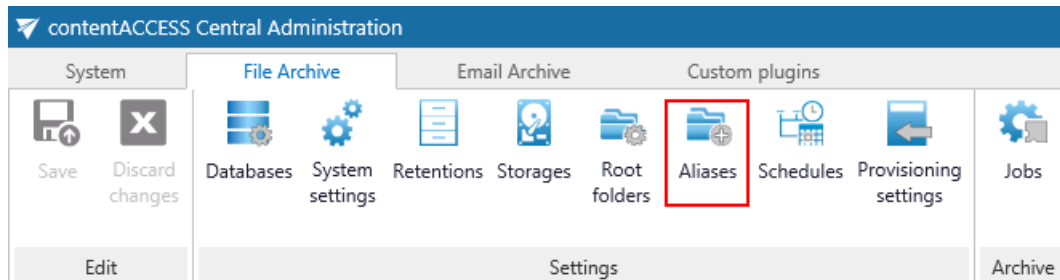
Note: We recommend to specify the parent folder (the start point of the archive process) in the File Path dialog. The relative folder path can be specified further on when configuring the respective job.

Deleting a root: Already configured root folders can be deleted from the list using the root’s context menu. A deleted root is only hidden, but it still exists in the database. If the user wishes to add an

already deleted root again, he will be prompted that it already exists in the database, and he will be able to restore it with the old settings only (with the originally assigned database and storage).

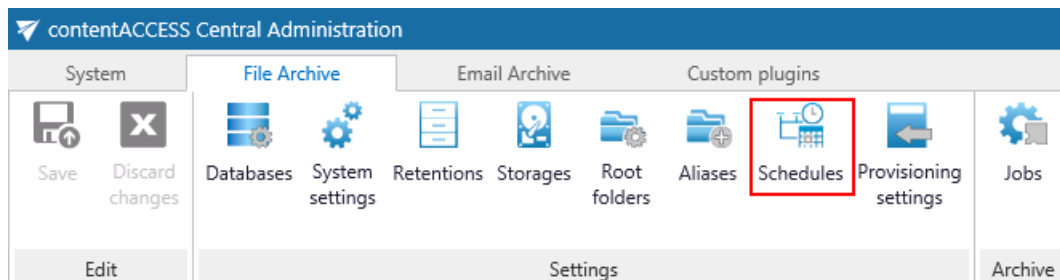
Aliases

Use this feature to specify different folder names pointing to the same file location. Read chapter [Configuring aliases](#) for more information.



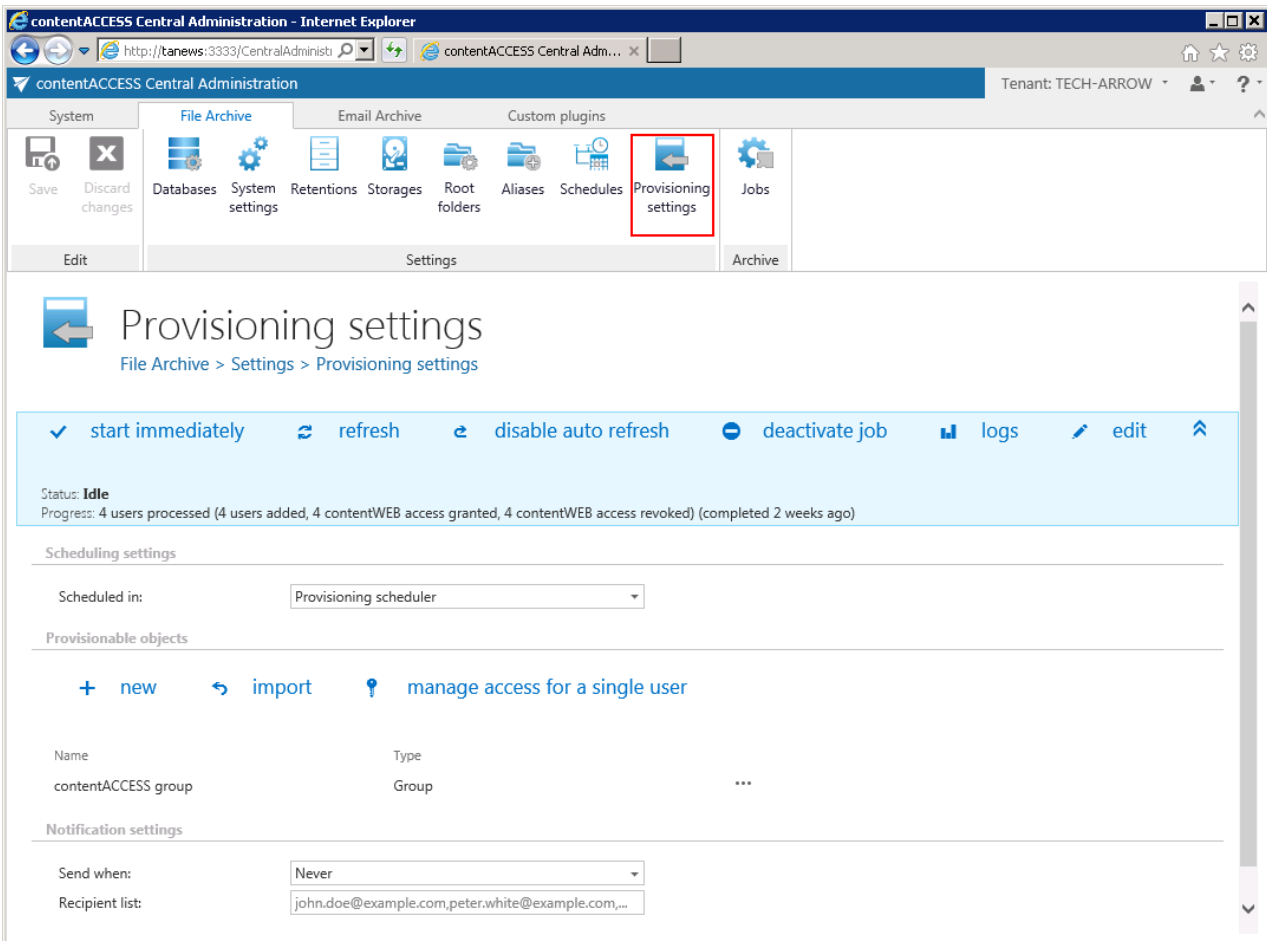
Schedules

The schedulers automatizing the file archive process are configured on this page; for more information how to create schedulers refer to this chapter: [Schedules](#).



Provisioning settings and managing access to contentWEB

The File Archive provisioning setting are accessible on the **File Archive** → **Settings** → **Provisioning settings** page.

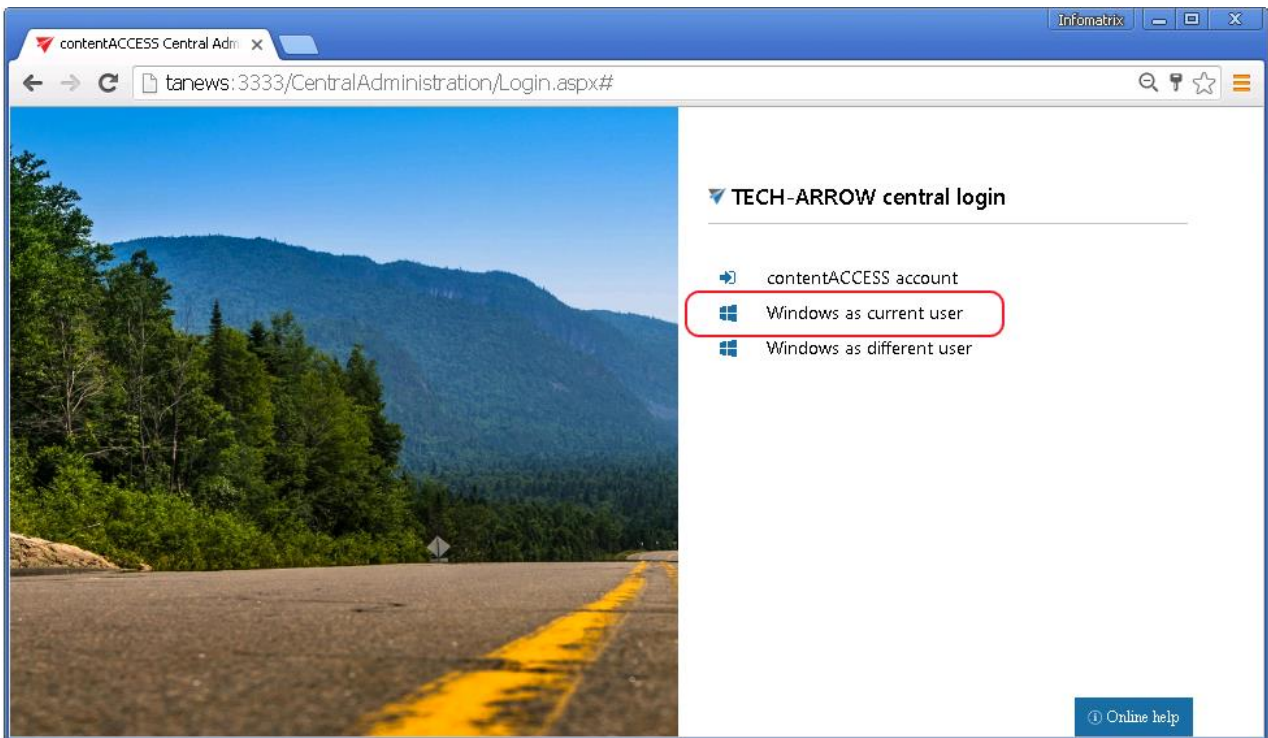


The screenshot displays the 'contentACCESS Central Administration' web interface. The top navigation bar includes tabs for System, File Archive, Email Archive, and Custom plugins. The 'Provisioning settings' link is highlighted with a red box. The main content area shows the 'Provisioning settings' page with a status of 'Idle' and progress information: 'Progress: 4 users processed (4 users added, 4 contentWEB access granted, 4 contentWEB access revoked) (completed 2 weeks ago)'. Below this, there are sections for 'Scheduling settings' (Scheduled in: Provisioning scheduler), 'Provisionable objects' (with buttons for new, import, and manage access for a single user), and 'Notification settings' (Send when: Never, Recipient list: john.doe@example.com,peter.white@example.com,...).

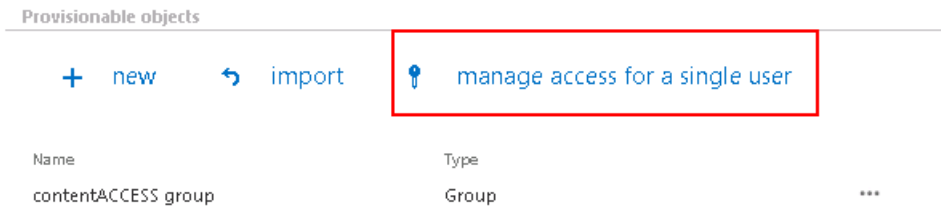
The provisioning job that synchronizes the Active directory with contentACCESS can be set directly on this page.

Note: The system's LDAP settings specified on page *System* → *Services* → *System* in section "Active directory integration settings" are used to connect to the Active Directory.

When the provisioning job is started, it will automatically **add the new Active Directory users into contentACCESS** based on provisioning settings. The provisioned objects will automatically get log on **rights to the contentWEB File Archive** and will be able to access the archive folders on which they have the necessary rights. The contentWEB users can log in to contentWEB using Windows authentication.



The existing contentWEB users can be viewed with clicking on the “manage access for single user” option on the **Provisioning settings** page:



The users that are already provisioned have an automatic flag, while manually added users have a manual flag:



Manage Access to File archive

System > Tenants > Tenants > Manage access

+ new

User name	Role name	Flags
tesztelek	*** Standard user	Manual
CONTENTACCESSUSER1	*** Standard user	Automatic (770)
CONTENTACCESSUSER2	*** Standard user	Automatic (770)
CONTENTACCESSUSER3	*** Standard user	Automatic (770)
CONTENTACCESSUSER4	*** Standard user	Automatic (770)

[Go back](#)

New contentWEB users can be added to the contentACCESS File Archive using the **+ new** option on the same page. File archive access rights can be given to an already existing or a new contentACCESS user.

Create new role association ✕

Tenant information

Role:

Invitation type:

Search for existing user*:

Andras Katona

Andras Palffy

Configuration of File archive provisioning:

To configure the File archive provisioning, the administrator is required to configure

1. The time periods, when the provisioning will run – this must be configured in section “Scheduling settings”.
2. The objects to be provisioned – must be set in section “Provisionable objects”.
3. Notification settings (optional)



Provisioning settings

File Archive > Settings > Provisioning settings

✓ start immediately
↻ refresh
🔌 disable auto refresh
⏸ deactivate job
📊 logs
✎ edit
⬆

Status: **Idle**
 Progress: 4 users processed (4 users added, 4 contentWEB access granted, 4 contentWEB access revoked) (completed 48 minutes ago)

1 Scheduling settings

Scheduled in:

2 Provisionable objects

+ new
↻ import
🔑 manage access for a single user

Name	Type	...
contentACCESS group	Group	...

3 Notification settings

Send when:

Recipient list:

Provisionable objects may be added:

- a) from importable files, using the “import” function (described in more details in chapter [Importing contentACCESS configurations from files](#))
- b) manually via the “new” button.

To add object manually, click “new” and specify the object(s) in the respective dialog. Choose the provisionable object type, which can be

- an **LDAP path**
- or a **Group**.

Type in the Active Directory path/group name. It is recommended to use the “Test” button to verify if the LDAP Path/Group name has been correctly entered in the first text box.

The provisioning job

- adds all the users involved in the LDAP path/Group into contentACCESS
- grants contentWEB File Archive rights for the users involved in the LDAP path/Group.



Provisionable object ✕

Name:

Provisionable object type:*

✔ Connection successfull!

Notification settings are used to set automatic email notifications to specific addresses if any warnings/errors occur. Set the notification emails if necessary and save your settings.

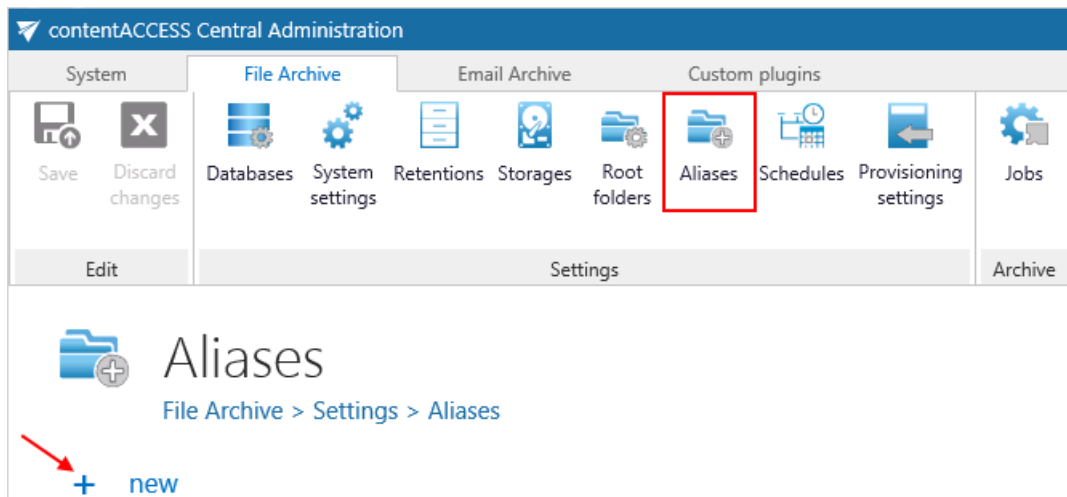
Configuring aliases

What are aliases? Aliases are multiple folder paths with different names which point to the same folder/set of files.

Currently contentACCESS uses aliases by mapping remote location paths to local paths, which is a must-to configuration by the Remote shortcutting job. (For more information refer to section [Configuration of Remote shortcutting job.](#))

Configuring an alias for the Remote shortcutting job. If you are shortcutting remote shares, but contentACCESS has archived the matching files on a local share, the shortcutting job must “pair” the remote share with the local share to be able to replace the matching files with shortcuts on the remote share and to open them. This “pairing” by the job can be done only in case, if remote and local shares are “paired” in contentACCESS, too (i.e. Aliases are specified).

Navigate to **File Archive** → **Settings** → **Aliases** tab on the Central Administration’s ribbon. On the **Aliases** page click on **+ new**:



The **Alias repository** will open. The repository requires to specify the:

- **Original location:** select the file archive root folder from the dropdown list; this is the file path used by the archive job
- **Remote location:** add the matching remote file path that needs to be replaced with shortcuts

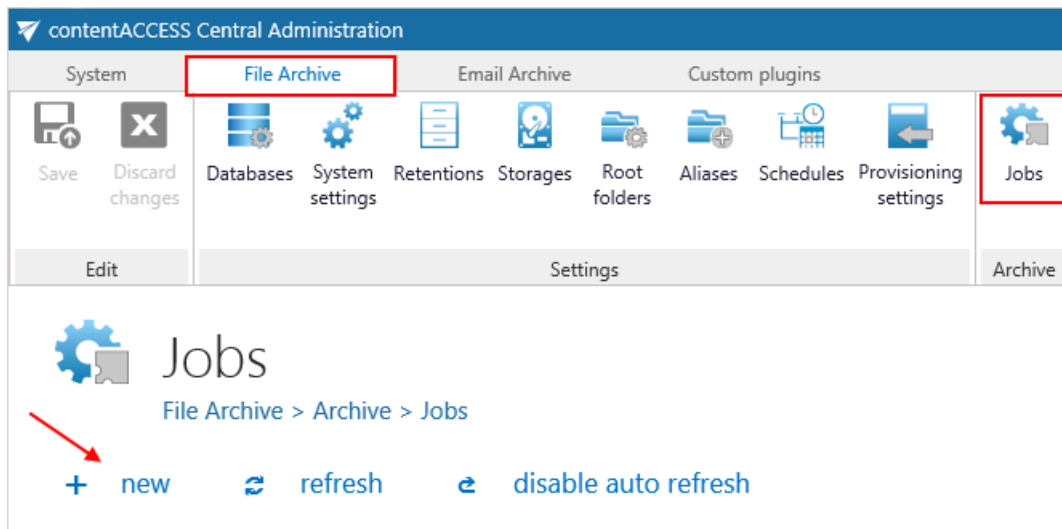
Further click on **Save**. The **Remote location** that you configured here can be selected on the **Remote shortcutting** job's configuration page later on.



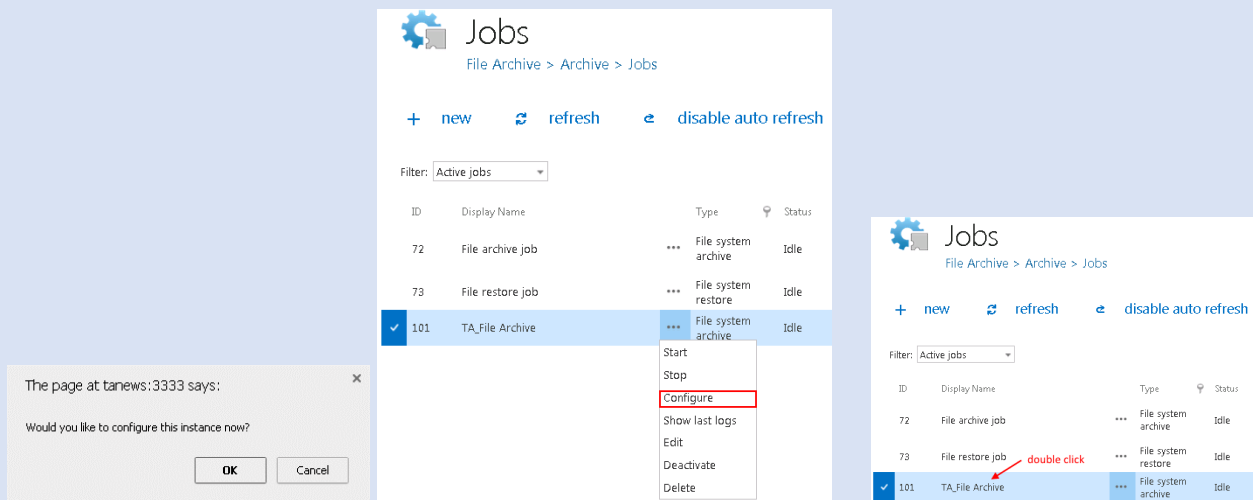
Note: A path extension can be added when setting the remote file location on the Remote shortcutting job's configuration page.

Configuration of jobs available in contentACCESS File Archive

Once all the necessary settings are done, select the tenant and navigate to the **File Archive** tab. Under **File Archive** → **Archive** group click on the **Jobs** control button, then click on **+ new** option.



Note: You can configure a file system job either immediately, or later on with navigating to the file system jobs' page, using the "Configure" option in the given job's context menu. The job configuration page can be also opened with a double click on the selected job in the jobs' grid.



Screenshot A: Configure the job page immediately when it is created

Screenshot B: Opening the job's configuration page from its context menu

Screenshot C: Opening the job's configuration with a double click in the grid

Configuration of File system archive job

In this section we will configure a file system archive job, which will run every day from 6 PM, will archive our 1-2 year old files, and the archived files will be replaced with shortcuts. Our database, storage, root folder, retention and scheduler are already configured. Navigate to **File Archive** →



Archive → **Jobs** button, click on **+new**. In the **Add new job instance** dialog select **File system archive** job from the **Available jobs:** dropdown list. Select the node where the job should run from the **Run on node** list. Now we you would not like to specify a node, so we select “Any available”. Enter a **Display name**, and click on **Add**.

On the job’s configuration page go through the following sections; most of them are mandatory, filtering settings are optional:

✓ **Scheduling settings:**

In this step the running times of the archive job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via create new option. For archiving job it is recommended to set up a scheduler which will run always, or in certain times during the week. Our job will run every day from 6 PM till midnight, after business hours. (For more information about how to set schedulers refer to the section [Schedules](#) above.)

Scheduling settings

Scheduled in:

✓ **Retention settings:**

Under retention settings the administrator may select a previously configured time period. During this time it will be disabled to delete the archived items from the storage. It is recommended to set here a time interval based on data recording regulations required either by the law of the country, or by internal company policies. In our country the required retention time is 10 years, so we set this here. (For more information how to set retentions check section [Retentions](#) above.)



Retention settings

Retention:

Retention required by law (10 years)

✓ Shortcut settings in File archive:

The user may decide, if the files will be archived using shortcuts or will be simply archived, creating a backup file to the original. It is also possible to set automatic deletion of the original document from the file system location. There are 3 shortcut types available in file system archive (the state before and after the archiving process is illustrated on the respective screenshots):

a) **Keep original** method (backup files with versioning) is often used on a daily basis. The main advantage of this processing type is, that the documents are ready at hand at any time, and the versions can be accessed from the archive at any time, too. This method keeps the original item in the original file location:

b) **Create shortcut from original item**: Files older than 1 year are usually archived with this shortcutting method. The main advantage of this method is the spared space on the computer. In case of need, the documents can be easily retrieved from the archive with clicking on the respective shortcut.

If the user modifies the file and saves it to the original location again, then the next archive job will create a new version from it into the archive, and will synchronize the shortcut with this new version.

c) **Delete original**: with this method the user deletes the file from the original location when archiving it. This processing type is often used when the document is not in use any more, but it must be restorable until a definite date required by the general records retentions of the country.

It depends on a particular situation, which method is advisable to use. You can use all methods simultaneously to have your daily backup – create versions when files are changed, or archive with shortcutting or delete original method in case of old(er) files.

Shortcut settings

Shortcut processing type:

- Keep original item
- Create shortcut from original item
- Delete original item

Virtual drive server name:

 Use default (tanews)

In this use case we will archive by using shortcuts. If you decide to use shortcutting, it is also necessary to specify the Virtual drive server name. This is the name of the server where the virtual drive is installed. In our case it is *tanews*. It is strongly recommended to use a name of the server under which it will be always accessible (DNS alias at best). This server name is then included in the generated



shortcuts. By using the **Use default** checkbox you may automatically select the Virtual Drive, which is already configured in the **System → Client Applications → Virtual Drive configuration** section. It is very useful to use this option, as if the Virtual Drive server name has been changed, then you have to change these settings on the **Virtual Drive configuration** page only. (For more information refer to section “[Virtual drive](#)”.) On the jobs’ configuration page the default Virtual Drive will be prepopulated.

With clicking on the **Test** button it is allowed to check if the connection to the Virtual drive server was established.

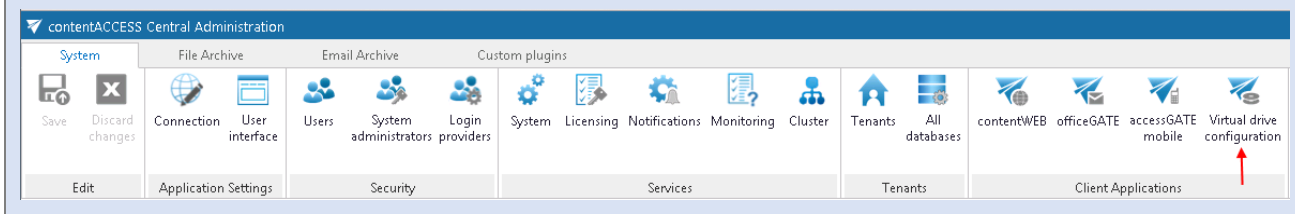
Shortcut settings

Shortcut processing type:

Virtual drive server name: Use default (tanews)

✔ Connection successfull!

Note: Virtual drive is included in the content ACCESS setup package. It needs to be configured with navigating to *System tab → Client applications → Virtual drive configuration* button on the ribbon. For further information how to install and launch it please refer to the Virtual Drive Installation Manual uploaded [here](#). After these necessary steps it will be shown among another drives (by default the Virtual drive will be the Z drive).



Note: The shortcuts used in file archive system are compatible with Macintosh operating system, too. It is a must to install TECH-ARROW’s WinShortcutter application on every client machine. It can be downloaded either from the Tools of the contentACCESS setup, or from our website, [here](#).

Note: It is important to bear in mind that archiving an HTML file with the shortcutting method in contentACCESS File Archive has certain technical limitations. If an HTML file to be archived contains pictures, then after the archiving process these pictures will not be visible when trying to open the HTML over the shortcut in the original location. Nevertheless these pictures will be still accessible with opening the HTML from the Virtual Drive.

✓ Folders to process:

In this section the user is required to select the local folder(s) or remote share(s) where the system data are located and will be archived. There are two available options how the list of folders may be specified:

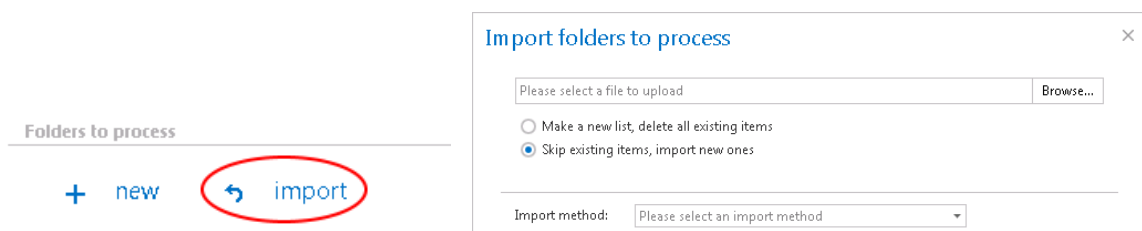
- a) The folder(s) may be added **via +new option**. In this case the folder(s) must be added manually one-by-one. Click on **+new** to open the **File Path** dialog.

Click on “**new**” to specify the folder to be archived manually. In the “Folder to process” dialog unroll the list of already created roots and select the one that should be applied. This dropdown lists the roots that are already configured (in File Archive settings: *File Archive* → *Settings* → *Root folders*). Enter the **Relative path** if necessary, test the path via the “Test” button and click “OK”.

Folders to process



- b) The **folder list may be also imported from a file**. The file to be imported must contain the list of folders that should be processed. Click the **import** button and the **Import file location dialog** opens. Specify here the required settings according to chapter [Importing contentACCESS configurations from files](#) of this guide.



Important!!! It is recommended to specify a file path that can be accessed from anywhere. This is quite important also in case that the user has contentACCESS installed in a distributed environment (using multiple cluster nodes).

✓ Exclude folders

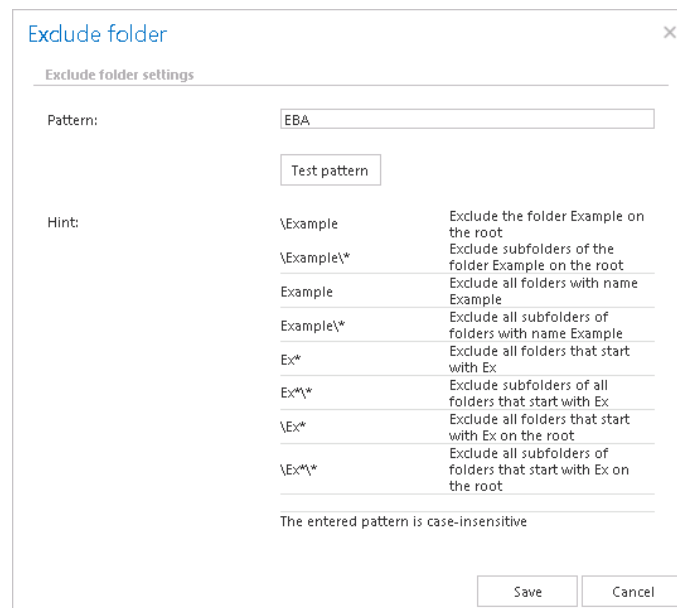
With this function you may set, which folders/subfolders should not be archived. If you would not like to exclude any folder from the archive process, you can skip these settings.

The folders may be excluded using one of the available methods: a) The folders to exclude may be **added manually** via the **+ new** option or; b) may be **imported** in one of the available file formats via the **import** option.



a) Add the folders to exclude manually:

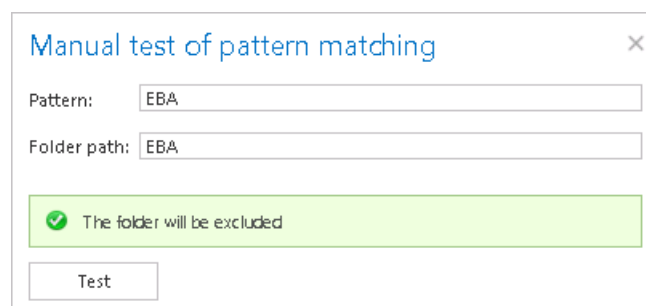
Click on **+ new** option. In the **Exclude folder** dialog's textbox specify the folder(s). Use the hints that are listed in the same dialog.



Test pattern button

This button was developed to check, if the entered pattern will be suitable for the path that the user would like to exclude from the archiving process. Click the **Test pattern** button to open the **Manual test of pattern matching** window. Enter the folder path into the **Folder path** field, and click on **Test** button.

The test will be successful, if the **Pattern** was entered correctly into the **Exclude folder** window.



b) Import the list of exclude folders:

Folders to exclude may be imported as files in one of the available formats: CSV, XML, Tab delimited files or Space delimited file. The file to be imported must contain the list of folders to exclude. To import such a file with the list of folders refer to chapter [Importing contentACCESS configurations from files](#) of this guide.



✓ Item filtering:

This configuration enables for the user to filter among items by 3 types of criteria: by age, size or file type. It is also enabled to use more filters simultaneously. For filtering documents according to any of these criteria activate the filter button by checking the checkbox next to it, then click on the activated button.

Item filtering

Filtering type:	Filters:	<input checked="" type="checkbox"/> Age filter <input type="checkbox"/> Size filter <input type="checkbox"/> File Type filter
-----------------	----------	---

▪ Age filter:

With this filter the user may select files to process with a specific age. The user has multiple choices here; he can select the filtration type from the list, and a) use either the **Use dates** option and pick up a date from the calendar, or b) he can enter a value into days/months/years textbox and search for the files which are younger than/older than or fall into time interval set here.

Using the creation date or modification date for filtering: By default the modification date is the determinative date, but this can be changed by checking the “**If creation date is younger than the modification date, use creation date for filtration**” checkbox. However, in certain cases the creation date of a file is set to younger date than the modification date of a file. This happens, if a file is copied to another external disk (for example from disk G to disk I). In this case the creation date will be set to the date of the copy action. If the user would like to use this file in the future and would not like to archive it, this enhancement that can solve this problem. With this feature it is possible to exclude the file with the newer creation date from the archiving process. To create a proper archiving policy take into consideration these rules: <https://support.microsoft.com/en-us/kb/299648>.

Examples of **using dates**:



Age Filter items younger than the specified date will be processed ×

Select filtration type:

Modification date is younger than
 Modification date is older than
 Modification date is in interval

Use Dates

Younger
 2/1/2015 12:00 PM

Days Months Years

If the creation date is younger than the modification date, use creation date for filtration

OK Cancel

Age Filter items older than the specified date will be processed ×

Select filtration type:

Modification date is younger than
 Modification date is older than
 Modification date is in interval

Use Dates

Older
 2/3/2015 12:00 PM

Days Months Years

If the creation date is younger than the modification date, use creation date for filtration

OK Cancel

Age Filter items with the specified date interval will be processed ×

Select filtration type:

Modification date is younger than
 Modification date is older than
 Modification date is in interval

Use Dates

From: 1/1/2013 12:00 PM To: 1/1/2014 12:00 PM

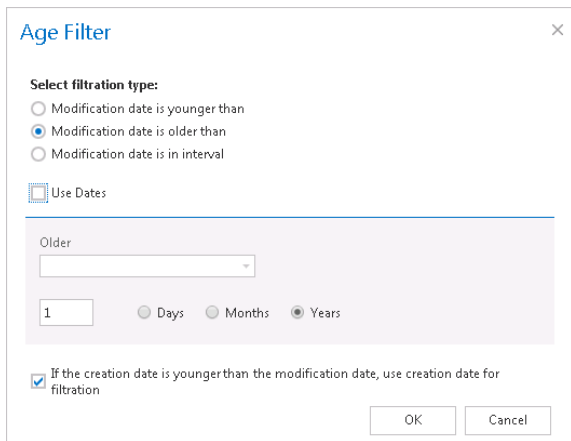
From: To: Days Months Years

If the creation date is younger than the modification date, use creation date for filtration

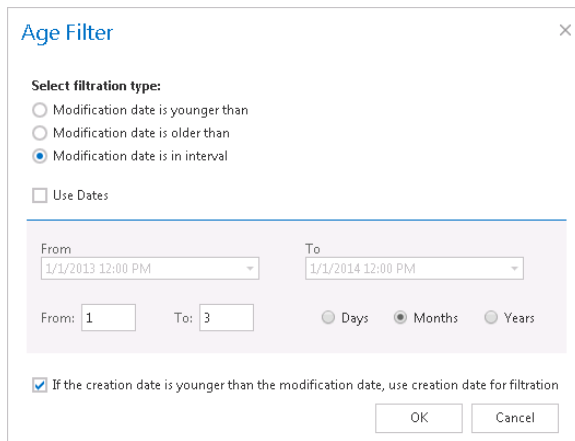
OK Cancel

Examples of filtering using days/months/years:

If the **Use dates** checkbox is not selected, then the date selection option becomes inactive. In this case it is allowed to filter between items with **Modification date is younger than/Modification date is older than** a certain number of days/month/years. Enter the value into the **From, To** checkboxes next to the **Days/Months/Years** radio button (screenshot A). It is also allowed to filter out items which belong to a certain period of time, e.g. items that are 1-3 months old (screenshot B). This age filtering type should be used if you would like to archive items, which are older/younger than a certain number of days/months/years (e.g. items older than 1 year). If the Age filter has been set click **OK**.



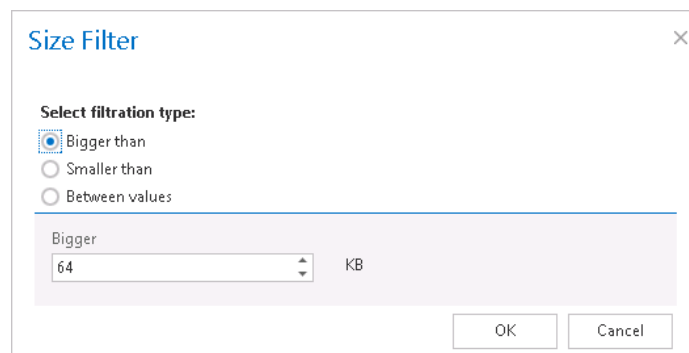
Screenshot A:



Screenshot B

- **Size filter:** This filter can be very useful because it enables to find the biggest files to archive and save space. For filtering files according to this criteria activate **Size filter** button by checking the checkbox next to it, then click on the active button.

In the **Size filter** dialog choose from the filtering types (**Bigger then, Smaller then, or Between values**), enter the size (in kilobytes) and click **OK**.



Screenshot: Files bigger than 64 kB will be processed

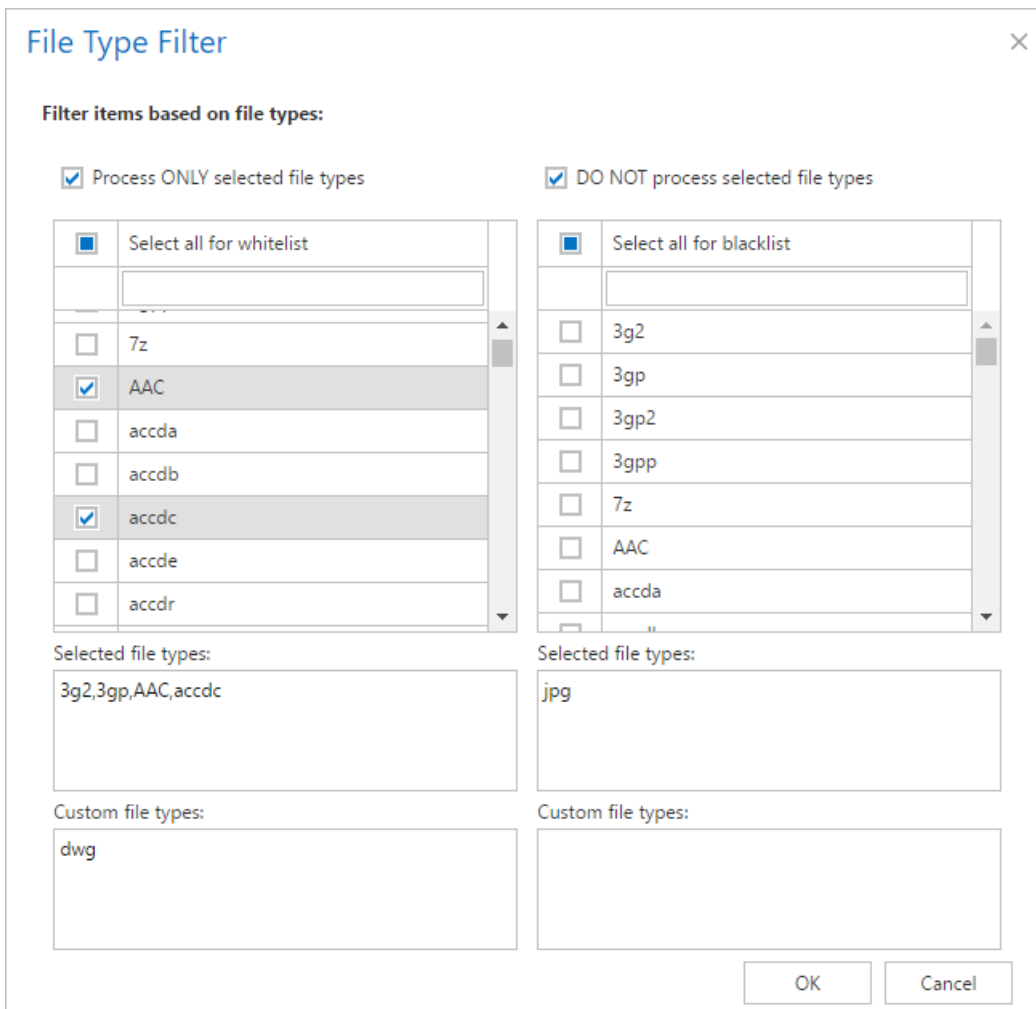
Important!!!: When the user changes the file content of an already archived item, e.g. deletes a picture from the file and saves it to the original location, (and thus the file size will be reduced e.g. from 110 to 85 kB) and file size filter is set on >100 kB, then File archive job will not archive the newly created item by the next processing. The newly created item will be saved in the original location, and the old shortcut will be present in the original location, which will still link to the old file without any changes.

From this reason, it is recommended to always check the size filter settings, if a file has not been archived by the next archiving process.

- **File type filter:** This filter was improved to select certain file types for processing. For filtering between documents according to this criteria activate **File Type filter** button by checking the checkbox next to it, then click on the active button.

In the **File Type filter** dialog the user may select the file types that need to be processed (option **Process ONLY selected file types**), or he may specify file types, that should be excluded from the processing (**DO NOT process selected file types**).

The file types selected in the whitelist/blacklist are displayed below the grid in a read-only text box. Any file types (also file types that are not included in the whitelist and/or blacklist) can be specified in the **Custom file types** text box (in this use case “dwg”).



File Type Filter

Filter items based on file types:

Process ONLY selected file types

DO NOT process selected file types

Process ONLY selected file types		DO NOT process selected file types	
<input checked="" type="checkbox"/> Select all for whitelist		<input checked="" type="checkbox"/> Select all for blacklist	
<input type="checkbox"/>	7z	<input type="checkbox"/>	3g2
<input checked="" type="checkbox"/>	AAC	<input type="checkbox"/>	3gp
<input type="checkbox"/>	accda	<input type="checkbox"/>	3gp2
<input type="checkbox"/>	accdb	<input type="checkbox"/>	3gpp
<input checked="" type="checkbox"/>	accdc	<input type="checkbox"/>	7z
<input type="checkbox"/>	accde	<input type="checkbox"/>	AAC
<input type="checkbox"/>	accdr	<input type="checkbox"/>	accda

Selected file types:

3g2,3gp,AAC,accdc

Selected file types:

jpg

Custom file types:

dwg

Custom file types:

OK Cancel

In our use case we will set only **age filter** for files older than 1 year, but younger than 2 years:



Age Filter ✕

Select filtration type:

Modification date is younger than

Modification date is older than

Modification date is in interval

Use Dates

From: To:

From: To: Days Months Years

Item filtering

Filtering type: Filters:
All items from the interval 1 - 2 years

Age filter
 Size filter
 File Type filter

✓ **Notification settings.** Select here, when you will need to get notification emails from the File Archive job. It is possible to set here, if you need a notification email always/never, or, you need it only if an error/warning occurred during the archiving process – for example, if the archive of one or more items failed, then you may get a notification email about this error. Into the **Recipient list** textbox insert the email addresses of the persons, to whom you would like to send these emails. It may happen, that the files are modified too often, and too many version are created. With the **Notify if version count reaches** option it is possible to define a maximum number of versions, over which the notifications will be sent. It is recommended to set here a higher value. This feature might also be used for troubleshooting purposes. E.g. if the number of versions gets higher than the value specified here, then an error might have occurred during the processing. In this use case the notifications will be sent to Walter White, if any errors or warning occur and/or version count reaches 50.

Notification settings

Send when: Errors or warnings occur

Recipient list: walter_white@tech-arrow.com

Notify if version count reaches: 50

✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the file archive job. The recommended value is 2, as in our case.

Resource settings

Worker thread count: 2

At the end never forget to save your job configurations: click on **Save** in the left upper corner of UI.



Now you need to wait till 6 PM, when the scheduler starts the job. Its running can be checked in the file archive jobs' grid.

The screenshot shows the 'Jobs' page in the File Archive interface. The page title is 'Jobs' and the breadcrumb is 'File Archive > Archive > Jobs'. There are three buttons: '+ new', 'refresh', and 'disable auto refresh'. A filter dropdown is set to 'Active jobs'. The table below has columns for ID, Display Name, Type, and Status. One job is listed with ID 72, Display Name '1 to 2 year old files', Type 'File system archive', and Status 'Running'. The 'Running' status is highlighted with a red box.

ID	Display Name	Type	Status
72	1 to 2 year old files	File system archive	Running

Where an end user may find his file system archive?

An end user has multiple choices where to view his archived files. He may either browse for them on the Virtual drive, or he can view them in contentWEB (contentWEB is the archive interface of contentACCESS). Virtual drive is a special contentACCESS extension developed by TECH-ARROW. Even the archived item will not be present here on this drive (it will be present in contentACCESS), but the user can browse for them here. A file opened through the Virtual drive is opened in read-only mode. This drive can be shared with any other users, so they can have a very easy access to the archived files. The shortcuts that replace the originals can be opened from the original file location. These shortcuts link to the virtual drive.

Configuration of a File system restore job

File system restore jobs are used to restore already archived items from shortcuts back into the original file location. To create a restore job, navigate to **File Archive** → **Archive** → **Jobs** button (File archive jobs page), and click on **+new**. In the **Add new job instance** dialog, select **File system restore** job from the dropdown list, select a node where the job should run from the **Run on node** dropdown list (if you would not like to specify a node here and the job should run on any available node, then select "Any available"), enter a **Display name**, and click on **Add**.



Add new job instance ✕

Available jobs:

Run on node:

Display name:

Description: Plugin for File system restoring.

On the File system restore job's configuration page the user is required to set the following sections:

✓ Scheduling settings:

In this step the running times of the restore job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via create new option. Restore jobs are run only in specific cases. In most of the cases a **One time** scheduler is used for the restore job (e.g. with start date 7th of September as in our case). (For more information about how to set schedulers refer to the section [Schedules](#) above.)

Scheduling settings

Scheduled in:

✓ Folders to process

In this section you have to select the local folder(s) or remote share(s) where the shortcuts – which replaced the original files – are located. The job will restore the original files from these shortcuts. There are 2 methods how these folders may be specified:

- a) Via “**new**” button:

Click on **+ new** and fill in the path to restore into the **Folder to process** dialog.

Folders to process

+ new
↶ import

Folder to process ✕

Root: Relative path:

✔ Connection successful!

- b) Via the “**import**” button:



 Folders to process

+ new **↶ import**

Import the folder path(s) to be restored from a file. Click “**import**”, browse for the import file, select the import method and specify the required settings, then upload the file with the desired file path(s). Learn more about files to import in chapter [Importing contentACCESS configurations from files](#) of this guide.

Important!!! It is highly recommended to specify file path(s) that can be accessed from anywhere. This is quite important also if the user has contentACCESS installed in a distributed environment (using multiple cluster nodes).

✓ Exclude folders

With this function you may set, which folders/subfolders should not be restored. If you would not like to exclude any folder from the restore process, you can skip these settings.

The folders may be excluded using one of the available methods: a) They may be **added manually** via the **+ new** option; b) or may be **imported** in one of the available file formats via the **import** option.

 Exclude folders

a) + new b) ↶ import

a) Add exclude folders manually:

Click on **+ new** option. In the **Exclude folder** dialog’s textbox specify the folder(s) to be excluded. Use the hints that are listed in the same dialog.

Exclude folder
✕

Exclude folder settings

Pattern:

Hint:

\\Example	Exclude the folder Example on the root
\\Example*	Exclude subfolders of the folder Example on the root
Example	Exclude all folders with name Example
Example*	Exclude all subfolders of folders with name Example
Ex*	Exclude all folders that start with Ex
Ex**	Exclude subfolders of all folders that start with Ex
\\Ex*	Exclude all folders that start with Ex on the root
\\Ex**	Exclude all subfolders of folders that start with Ex on the root

The entered pattern is case-insensitive

b) Import the list of folders:

Exclude folders may be imported as files in one of the available formats: CSV, XML, Tab delimited files or Space delimited file. The file to be imported must contain the list of folders to exclude. To import such a file with the list of folders refer to chapter [Importing contentACCESS configurations from files](#) of this guide.

✓ Modification date

This section allows to command to a restore job to restore the archived item a) either with the original modification date [**original modification date (default)**], or b) with the date of restore (**restore date**).

Modification date

Set the modification date of restored items to:

original modification date (default) ▾

original modification date (default)

restore date

It is rather recommended to restore the item with the original modification date, which is also set as default. However, “restore date” option might be useful in case, if an archive job on the selected folder path is already running and the age filter is set to younger older than the restore date. With this setting we can prevent the restored document from re-archiving. From this reason we also set in this use case “restore date” option.

- ✓ **Notification settings.** Select here, when you will need to get notifications from the File Archive restore job. It is possible to set here, if you need a notification email always/never, or, you need it



only in case when an error/warning occurred during the restoring process – for example, if the restore of one or more documents failed, then you will get a notification email about this error. Into the **Recipient list** textbox insert the email addresses of the persons, to whom you would like to send these emails. Notifications emails may be used as means of troubleshooting of possible failures/errors. (In this use case we do not require such notifications, so we set it to “Never”)

Notification settings

Send when:	<input type="text" value="Never"/>
Recipient list:	<input type="text" value="john.doe@example.com,peter.white@example.com,..."/>

- ✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the file restore job. The recommended value is “2”.

Resource settings

Worker thread count:	<input type="text" value="2"/>
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At the end never forget to save your job configurations: click on **Save** in the left upper corner of UI.

The restore job has finished its task. The restored items can be viewed in the original file location, with the restore dates.

Configuration of File system recovery job

File system recovery jobs are used to re-generate a file system from the archive back into the original file location. This processing type can be used in the following cases:

- The entire folder structure has been deleted;
- One or more folders have been deleted;
- One or more documents from the folder(s) have been deleted and the user needs to get back these already archived documents from the archive.

The file system recovery is able to reconstruct the entire folder structure from the archive: the items which have been already archived will be put back into their source location. It will also create the folder if it was deleted from the folder structure. It is possible to recover any part of the structure:

- One or multiple folders;
- Recursive folder structure;

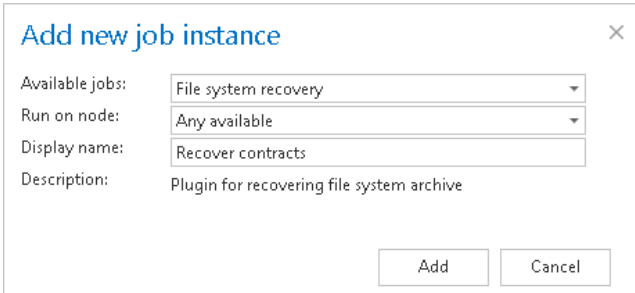
- One or more folder contents.

The file system recovery job is checking for the duplicates, so the same recovery job can be run safely multiple times, duplicates will not be created:

- If there is a shortcut for the recovered file in the folder – the file won't be recovered;
- If the file is already present in the folder – the file won't be recovered;
- If the same file is archived multiple times into the same folder – only the youngest file will be recovered.

The user has multiple options what to recover; it is possible to recover either the original file, or the shortcut. The recovery job can be also used, if the user archived the files with the “delete” method, and these files should be put back into the file system.

To create a recovery job, navigate to **File Archive** → **Archive** → **Jobs** control button, and click on **+new**. In the **Add new job instance** dialog, select **File system recovery** job from the dropdown list, select a node where the job should run from the **Run on node** dropdown list (if you would not like to specify a node here and the job should run on any available node, then select “Any available”), enter a **Display name**, and click on **Add**.



On the File system recovery job's configuration page the user is required to set the following sections:

✓ **Scheduling settings:**

In this step the running times of the recovery job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via create new option. Recovery jobs are run only in specific cases. In most of the cases it is recommended to set a **One time** scheduler for the recovery job (e.g. with start date 7th of September at 6 PM), or to start the job manually from the status bar. (For more information about how to set schedulers refer to the section [Schedules](#) above.)



Scheduling settings

Scheduled in:

✓Processing settings:

There are two possibilities what to recover by the job: the user may recover either the original, or the shortcut. If the user selects the shortcutting option, it is also required to specify the Virtual drive server name. By using the “**Use default**” option the Virtual Drive that was already configured on the Virtual Drive configuration page will be automatically preselected. It is recommended to use this option, as if the settings have been changed on the Virtual Drive configuration page, the value will be automatically used by the job, too, without a need to change the job’s settings.

Processing settings

Shortcut processing type:

Virtual drive server name: Use default (tanews)

✓ Connection successfull

✓Folders to process:

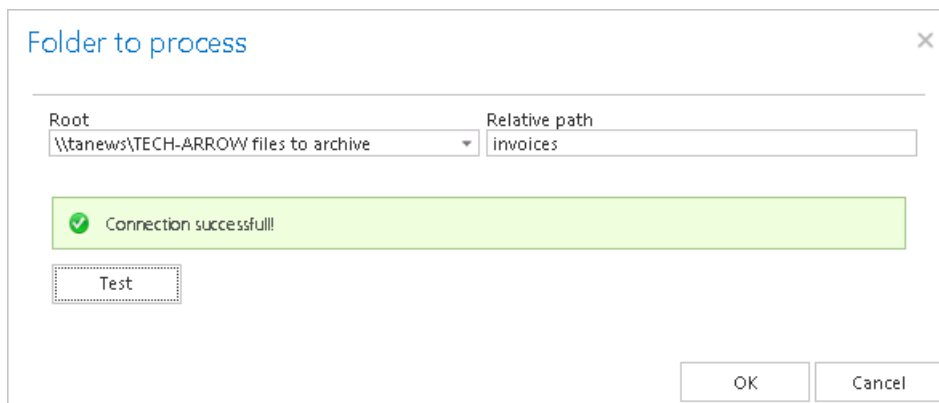
In this section the user is required to specify one or multiple archive folder(s), or recursive folder structure(s) that were deleted and need to be recovered from the archive. There are multiple options how to add new source location(s) of which contents need to be recovered:

Folders to process

a) **+** new b) **↶** import

a) Via the **+ new** option:

Click **+new**. The **Folder to process** dialog will open. In our case the contents of the “**invoices**” folder (file path `\\tanews\TECH-ARROW files to archive\invoices`) was originally archived and deleted, and we need these documents receive back from the archive. First we select the **Root** file path from the dropdown list and enter the subfolder to the **Relative path** text box.



b) It is also possible to import the files to recover from a file, where the file path(s) are specified. To import this file, click the “**import**” button and follow the steps specified in chapter [Importing contentACCESS configurations from files](#) of this guide.

Important!!! It is highly recommended to specify the file location as a path that can be accessed from anywhere. This is quite important also if the user has contentACCESS installed in a distributed environment (using multiple cluster nodes).

✓ Exclude folders

With this function you may set, which folders/subfolders should not be recovered. If you would not like to exclude any folder from the recovery process, you can skip these settings.

The folders may be excluded using one of the available methods: a) They may be **added manually** via the **+ new** option; b) or may be **imported** in one of the available file formats via the **import** option.

Exclude folders

a) **+** **new** b) **↶** **import**

a) Add exclude folders manually:

Click on **+ new** option. In the **Exclude folder** dialog’s textbox specify the folder(s) to be excluded. Use the hints that are featured in the same dialog.

Exclude folder
✕

Exclude folder settings

Pattern:

Hint:

\\Example	Exclude the folder Example on the root
\\Example*	Exclude subfolders of the folder Example on the root
Example	Exclude all folders with name Example
Example*	Exclude all subfolders of folders with name Example
Ex*	Exclude all folders that start with Ex
Ex**	Exclude subfolders of all folders that start with Ex
\\Ex*	Exclude all folders that start with Ex on the root
\\Ex**	Exclude all subfolders of folders that start with Ex on the root

The entered pattern is case-insensitive

b) Import the list of exclude folders:

Exclude folders may be imported as files in one of the available formats: CSV, XML, Tab delimited files or Space delimited file. The file to be imported must contain the list of folders. To import such a file with the list of folders refer to chapter [Importing contentACCESS configurations from files](#) of this guide.

✓ Modification date

The files can be recovered either with the original modification date, or with the recovery date. It is recommended to set the recovery date, if the folder is already processed by an archive job, and the user wants to prevent the folder from re-archiving.

Modification Date

Set the modification date of recovered items to:

original modification date (default)

recovery date

✓ Notification settings:

The user may select here, in which cases he needs to get notifications from the recovery job. It is possible to set here, that the notification emails will be sent only in case of errors or warnings, or they can be sent in all cases, too. Into the **Recipient list** textbox the user should insert the email addresses of the persons, to whom these emails should be sent. Notifications emails may be used as tools of the troubleshooting process.



Notification settings

Send when:	Errors or warnings occur
Recipient list:	first name_last name@example.com

✓ Resource settings:

The user may set a value here, which will determine how many items will be processed simultaneously by the recovery job.

Resource settings

Worker thread count:	2
----------------------	---

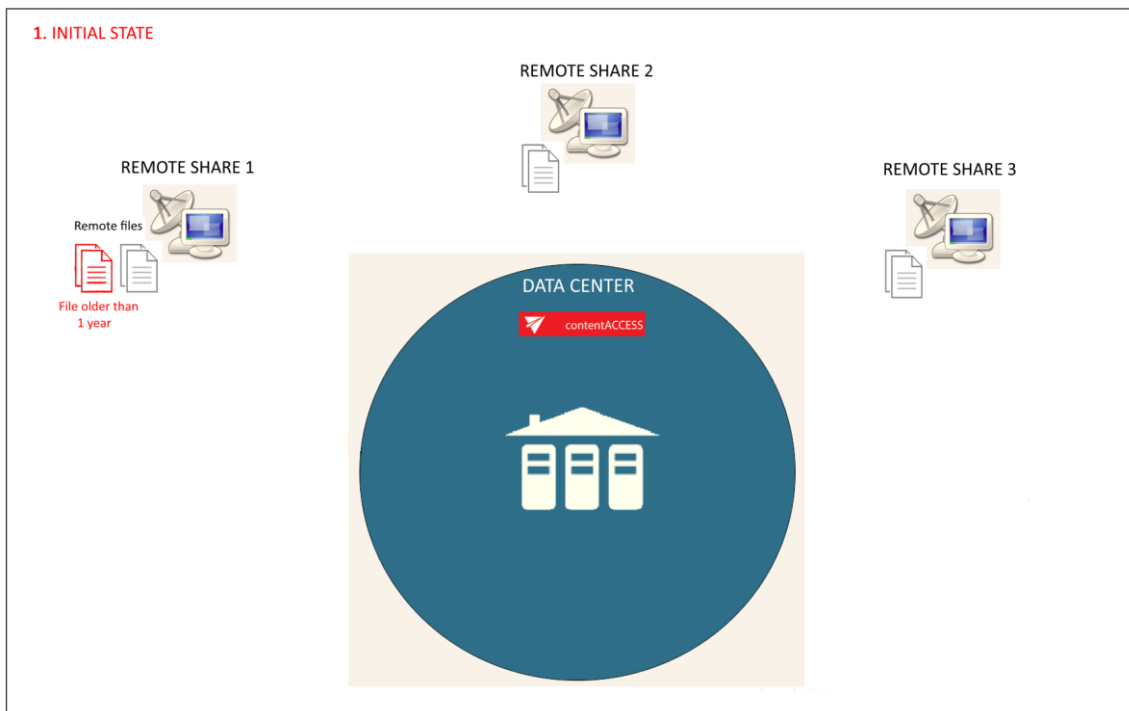
Configuration of Remote shortcutting job

Remote shortcutting job is a special job type, which is used with the file archive job together. This type of job is used if you have several remote locations synchronized with your central data center, you are archiving files in the data center with a File system archive job, and the remote files should be replaced by shortcuts (by the Remote shortcutting job) to spare storage space on the remote shares. contentACCESS is installed on the data center, and continuously archives the files already copied to the data center. So the archiving itself is done by a standard File system archive job; the Remote shortcutting job is used to create shortcuts on the remote shares. Archiving from the data center can be done with the shortcutting, journal or with the keep original method, so all types can be used.

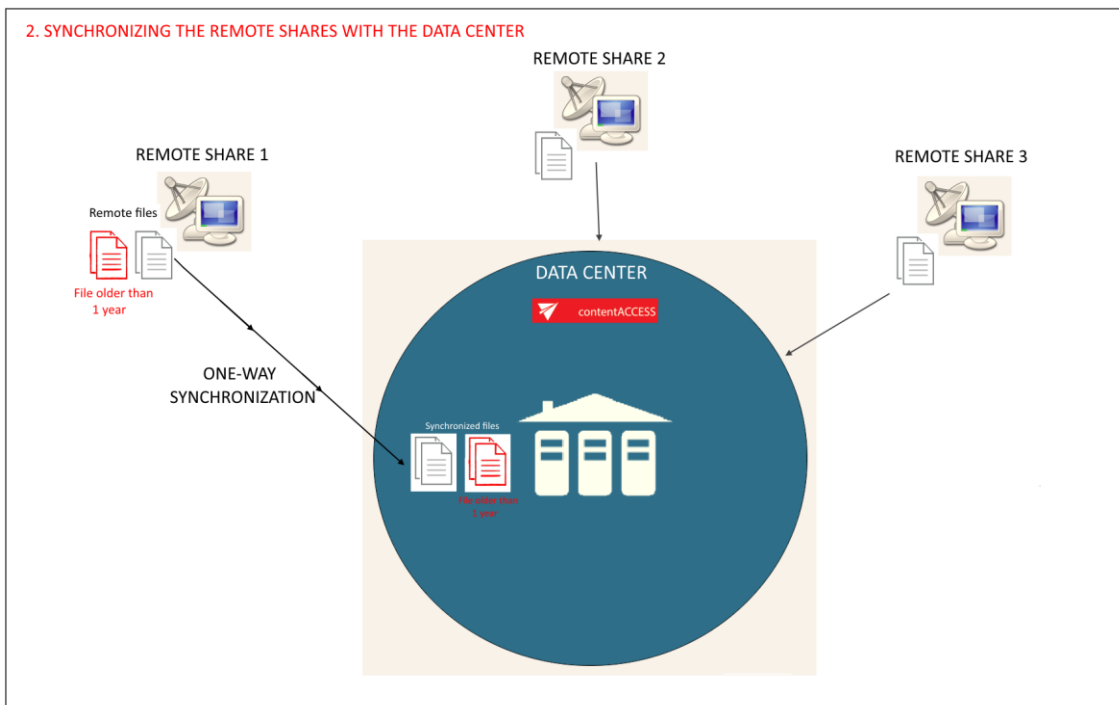
Note: Remote shortcutting job **can replace remote files with shortcuts** only in case, if the matching file in the data center (where contentACCESS is installed and file archive job is running) has been **already archived**. The **modification date** of the remote file and data center-file **must be the same**, too, otherwise the shortcutting job will skip the file and will write this information into the .log file.

On the chart below you can see the phases of this shortcutting process; contentACCESS server is installed on the data center only:

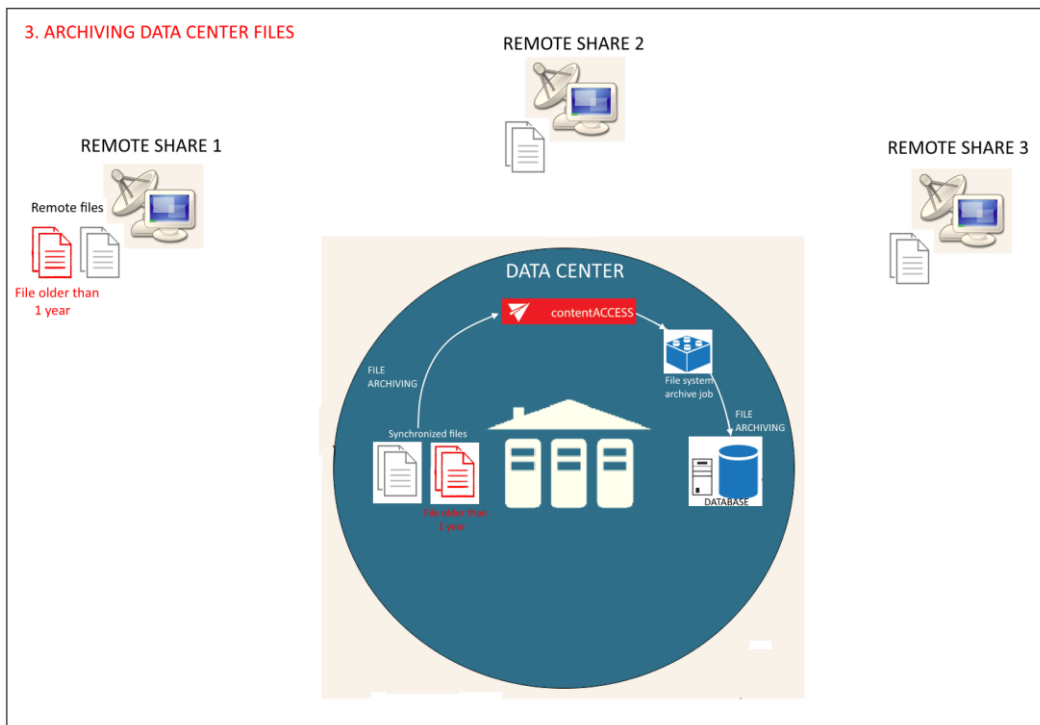
1. The first chart illustrates the initial state of the remote shares and the central data center, where the remote files will be synchronized;



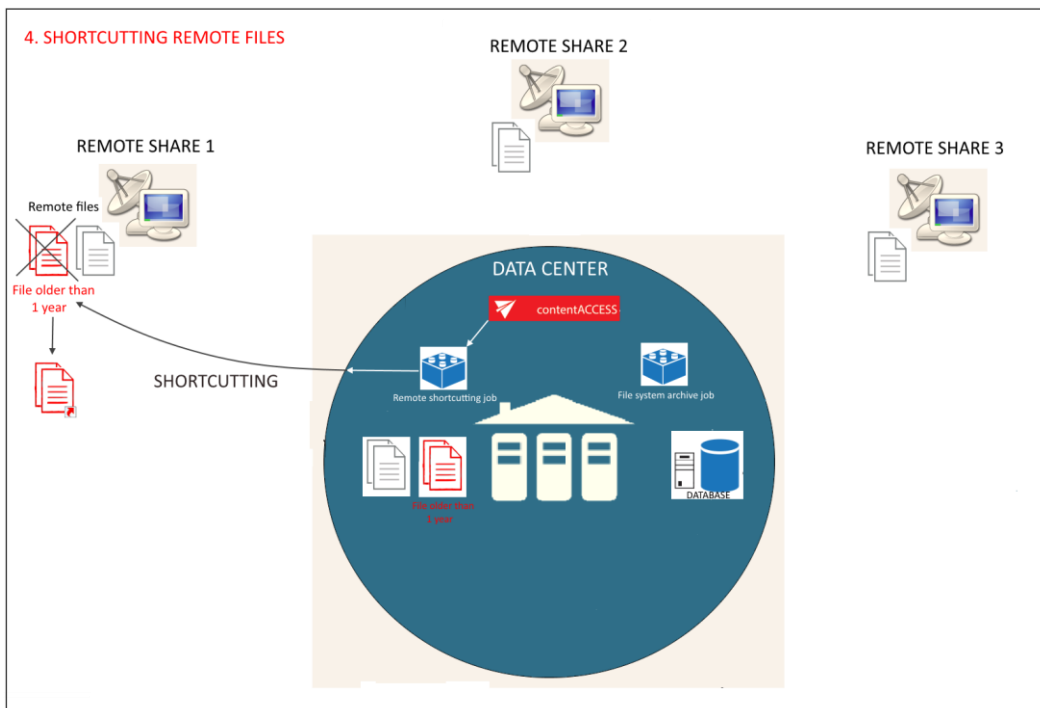
2. On the second chart you may see how the remote shares are synchronized by the data center (i.e. files from the remote share(s) are copied to the data center);



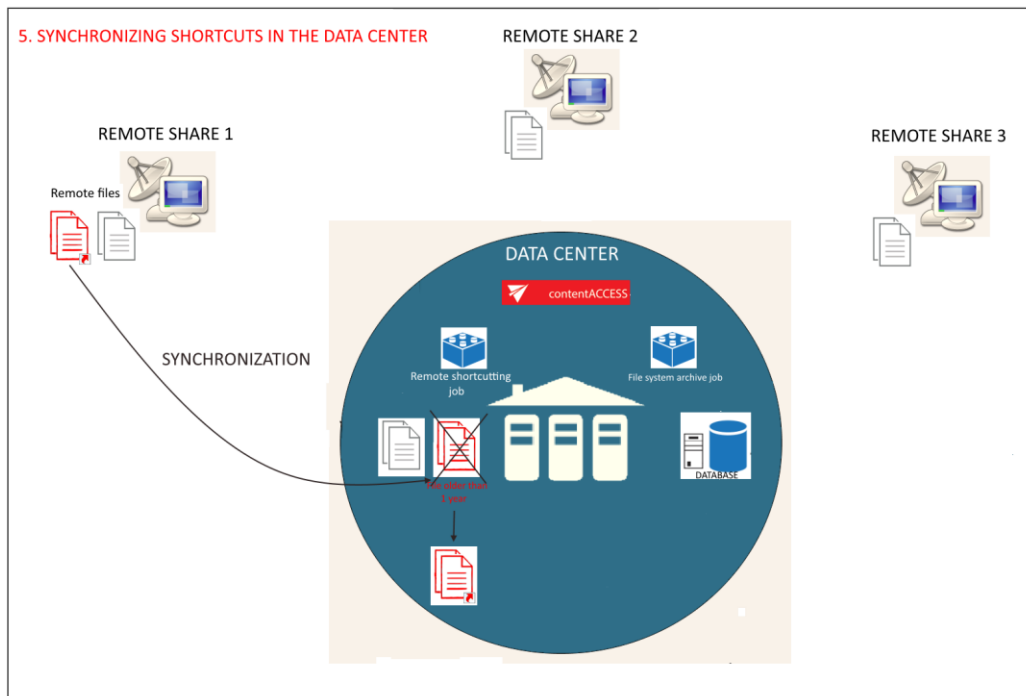
3. The third chart shows how the File system archive job archives the files in the data center into the contentACCESS database;



4. On the forth chart the already archived, <1 year old files (the age is specified in the Remote shortcutting job) are replaced with shortcuts on the remote share; this process is executed by the Remote shortcutting job;



5. The last picture illustrates, how the shortcuts on the remote share are synchronized with the data center files (i.e. the data center files are also replaced with shortcuts).



In this section we will configure a **Remote shortcutting** job, which will run every day from 6 PM and will replace our remote files with shortcuts, that weren't touched for a year (modification date is > 1 year). The remote files are located in "\\tawin10\.....\Test documents for Remote shortcutter job\". Let's assume that the remote files have been synchronized with the files in a data center and have been already archived, so our archive database is already configured in contentACCESS. (For more information refer to section [Databases](#)) We also assume, that the remote share's file path and the data center's file path have been configured on the Aliases page. (For more information refer to section [Configuring aliases.](#))

Navigate to **File Archive** → **Archive** → **Jobs** button, click on **+new**. In the **Add new job instance** dialog select **Remote shortcutting** job from the **Available jobs:** dropdown list. Select the node where the job should run from the **Run on node** list. Now we you would not like to specify a node, so we select "Any available". Name it, and click on **Add**.



Add new job instance ✕

Available jobs:

Run on node:

Display name:

Description: Plugin for file system shortcutting in remote location.

On the job's configuration page go through the following sections; most of them are mandatory, filtering settings are optional:

✓ Scheduling settings:

In this step the running times of the shortcutting job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via "create new ..." option. It is recommended to set up a scheduler which will run always, or in certain times during the week. Our job will run every day from 6 PM till midnight, after business hours. (For more information about how to set schedulers refer to the section [Schedules](#) above.)

Scheduling settings

Scheduled in:

✓ Processing settings

Enter the server name, where the virtual drive has been installed (DNS alias at best). Virtual drive will be used to open the shortcuts linking to the archived files.

By using the "Use default" option the Virtual Drive that was already configured on the Virtual Drive configuration page will be automatically preselected. It is recommended to use this option, as if the settings have been changed on the Virtual Drive configuration page, the value will be automatically used by the job, too, without a need to change the job's settings.

Processing settings

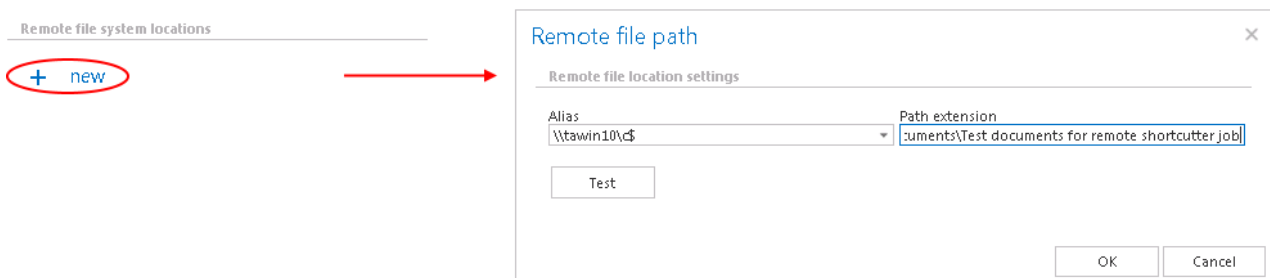
Virtual drive server name: Use default (tanews)

✔ Connection successfull!

✓ Remote file system locations

In this section the user needs to specify the remote share(s) containing the files to be replaced with a shortcut. It is also possible to specify multiple remote shares. Only the remote file path(s) specified on the **Aliases** page will be listed in the dialog. (For more information about configuring aliases refer to [Configuring aliases](#).)

Click on **+new** and the **Remote file path** dialog will open. Unroll the **Alias** dropdown list and select the alias that the job should use. The relative folder path must be set in the **Path extension** text box.



✓ Item filtering:

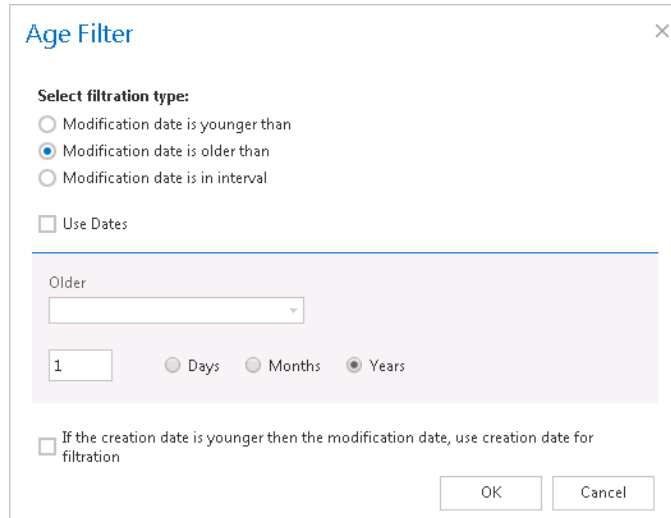
This configuration enables for the user to filter among items to be shortcutted by 3 types of criteria: by age, size or file type. It is also enabled to use more filters simultaneously. For filtering documents according to any of these criteria activate the filter button by checking the checkbox next to it, then click on the activated button.

▪ Age filter:

With this filter the user may configure, how old files should be processed by the shortcutting job. The user has multiple choices here; he can a) use either the **Use dates** option and pick up a date from the calendar, or b) he can enter a value into days/months/years textbox to process the files which are younger than/older than or fall into time interval set here.

The shortcutting job is checking if the modification date of the remote files is the same as the modification date of the data center files. If the dates are the same, the job replaces the remote files with a shortcut; if the dates are different, it skips the remote files and writes this information into the .log file.

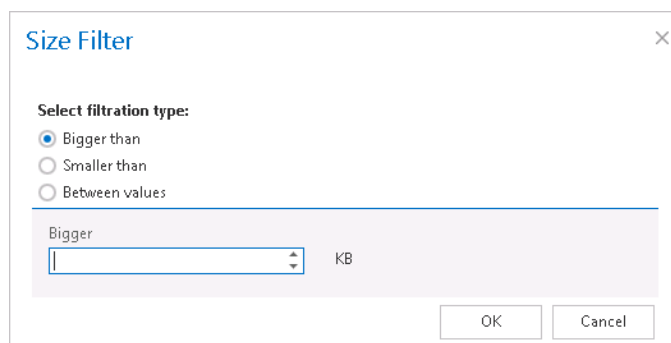
As we would like to replace with shortcuts remote files older than 1 year, we set “**Modification date is older than**” 1 year in the **Age filter** repository window.



Screenshot: Remote files older than 1 year will be replaced with shortcuts

- **Size filter:** This filter can be used, if you would like to replace with shortcuts only files of a certain size. To use it, activate **Size filter** button by checking the checkbox next to it, then click on the active button.

In the **Size filter** dialog choose from the filtering types (**Bigger then**, **Smaller then**, or **Between values**), enter the size (in kilobytes) and click **OK**.



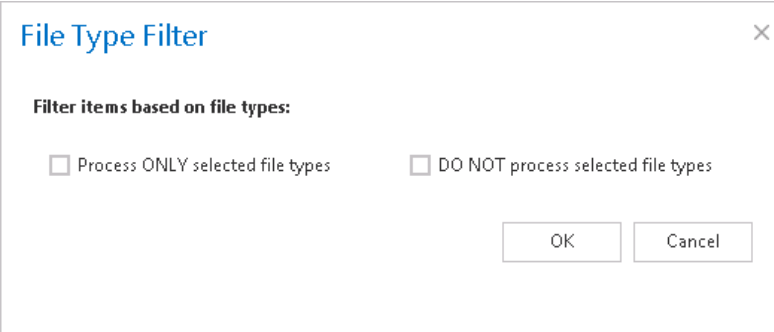
If the user would like to process all files of the remote share, he can skip this filter settings (like in this use case as well).

Important!!!: When the user changes the file content, e.g. deletes a picture from the file and saves it to the original location, (and thus the file size will be reduced e.g. from 110 to 85 kB) and file size filter is set on >100 kB, then the shortcutting job will not process the newly created item by the next processing. The newly created item will be saved in the remote location, and the old shortcut will be present in the remote location, too, which will still link to the old file without any changes.

From this reason, it is recommended to always check the size filter settings, if a file has not been replaced by a shortcutting job.

- **File type filter:** This filter was improved to select certain file types for processing. For filtering between documents according to this criteria activate **File Type filter** button by checking the checkbox next to it, then click on the active button.

In the **File Type filter** dialog the user may select the file types that need to be processed (option **Process ONLY selected file types**), or he may specify file types, that should be excluded from the processing (**DO NOT process selected file types**).



If you need to process all files on the remote share, skip these settings.

- ✓ **Notification settings.** Select here, if you will need to get notification emails from the **Remote shortcutting** job, and in which cases you would like to get such email message.

Into the **Recipient list** textbox insert the email addresses of the persons, to whom you would like to send these emails.

Notification settings

Send when:	Errors occur
Recipient list:	walter_white@tech-arrow.com



✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the job. The recommended value is 2, as in our case.

Resource settings

Worker thread count:

At the end never forget to save your job configurations: click on **Save** in the left upper corner of UI.



Active/inactive documents in File system archive

Definition of terms: file = file on the file system; item = archived file in the archive

To avoid displaying duplicate items in the archive the user has got the choice to filter between active and inactive items in the contentACCESS archive (contentWEB). A duplicated item is created, when a file is processed multiple times and is saved into the archive multiple times. A typical use case might be, when a user copies a file from one source folder to a target folder in his file system, then deletes the file from the source folder. Let's assume, that the archive job meanwhile caught and processed both files (created duplicates in the archive). To avoid the user from confusing, the files processed in the source and target folder need to be differentiated from each other in the archive. The file archived from the source location will be inactive in the archive (the file in the source location is not available on the user's side, the user deleted it); the file archived from the target location will be active in the archive (the file in the target location is available for the user). The contentWEB active/inactive filter makes it easy to display the actual (last touched) files in the archive.

When is an item/folder inactive in the archive? An item/folder gets an **inactive status** in the archive, if the **file/folder no longer exists in the file system (neither the original, nor the shortcut to it)**. Once the item is touched (e.g. versions were created, it was restored by a job, or recovered), its status will turn to active.

When an archive job is running, it is synchronizing the current state of the archive with the state of the file system. The following tables will give an overview to a user, when an item is active/inactive in the archive. The light blue cells contain the files/folders that are found by an archive/restore/recovery job in the file system (on the user's side), the grey cells inform the reader about the action that the job performs when it finds this particular file/folder.



Archive with shortcutting method

File system (user's side)	Is item in archive in the same location?	
A) Shortcut was found by the archive job	YES: the job does not touch the shortcut. The item will be ACTIVE .	NO: the job will duplicate the item to the new location. The shortcut will be updated with a new ID. The new item will be ACTIVE (the old item is not touched).
B) File was found by the archive job	Is item in the archive?	
	YES: If the file was changed, a new version will be created in the archive, and the file will be converted to shortcut. The item will be ACTIVE in the archive.	NO: The file will be archived and the file will be converted to shortcut; the item will be ACTIVE in the archive.
C) No shortcut, no file was found by the archive job	YES: the item will be INACTIVE in the archive.	NO: no action will be performed by the job
D) Folder no longer exists	Is folder in the archive?	
	YES: folders will be INACTIVE (recursively); items will be INACTIVE	
E) Folder exists	Is folder in the archive?	
	YES: permissions will be actualizes and the folder will be set to ACTIVE	NO: it will be archived and will be set to ACTIVE

Archive with the “Keep original” method

File system (user's side)	Is item in archive in the same location?	
A) Shortcut was found by the archive job	YES: the job does not touch the shortcut. The item will be ACTIVE .	NO: the job will duplicate the item to the new location. The shortcut will be updated with a new ID. The new item will be ACTIVE (the old item is not touched).
B) File was found by the archive job	Is item in the archive?	
	YES: If the file was changed, a new version will be created in the archive, and the file will be kept in the file system. The item will be ACTIVE in the archive.	NO: The file will be archived and the original will be kept; the item will be ACTIVE in the archive.



C) No shortcut, no file was found by the archive job	YES: the item will be INACTIVE in the archive.	NO: no action will be performed by the job.
D) Folder no longer exists	Is folder in the archive?	
	YES: folders will be set to INACTIVE (recursively); items will be set to INACTIVE .	
E) Folder exists	Is folder in the archive?	
	YES: permissions will be actualized and the folder will be set to ACTIVE ,	NO: it will be archived and will be set to ACTIVE .

Archive with the “Delete original” method

File system (user’s side)	Is item in archive in the same location?	
A) Shortcut was found by the archive job	YES: the job does not touch the shortcut. The item will be ACTIVE .	NO: the job will duplicate the item to the new location. The shortcut will be updated with a new ID. The new item will be ACTIVE (the old item is not touched).
B) File was found by the archive job	Is item in the archive?	
	YES: If the file was changed, a new version will be created in the archive, and the file will be deleted from the file system. The item will be INACTIVE in the archive.	NO: The file will be archived and the original will be deleted; the item will be INACTIVE in the archive.
C) No shortcut, no file was found by the archive job	YES: the item will be INACTIVE in the archive.	NO: no action will be performed by the job.
D) Folder no longer exists	Is folder in the archive?	
	YES: folders will be set to INACTIVE (recursively); items will be set to INACTIVE .	
E) Folder exists	Is folder in the archive?	
	YES: permissions will be actualized and the folder will be set to ACTIVE .	NO: it will be archived and will be set to ACTIVE .

Note: The user may browse for his archived items either in contentWEB, or on Virtual drive. By default, Virtual drive displays the active items only, but this is configurable from the Virtual drive's configuration page (System → Client applications → Virtual drive configuration).

Automatic restore from shortcut

File system (user's side)	Action performed by the restore job
A) Shortcut found	The job restores the original into the file system location; the item in the archive will be set to ACTIVE .
B) No shortcut found	No action.

Automatic recovery

File system (user's side)	Action performed by the recovery job
A) File found	No action, file will be skipped.
B) Shortcut found	No action, shortcut will be skipped.
C) Nothing found	C/1) If the job configuration requires to recover original: the original will be created in the file system; the item will be ACTIVE in the archive.
	C/2) If the job configuration requires to recover shortcut; the shortcut will be created in the file system; the item will be ACTIVE in the archive.

Manual recovery from contentWEB

File system (user's side)	Action performed by the manual recovery
D) File found	No action, file will not be touched, it will be skipped. The item will be ACTIVE in the archive.
E) Shortcut found	Shortcut will be replaced by the original file in the file system; it will be ACTIVE in the archive.
F) Nothing found	New file will be created in the file system; the item in the archive will be ACTIVE .

Other use cases:

- ✓ The shortcut is deleted from file system: during the archive process nothing happens in the archive, the items change to **INACTIVE** if they were active before.
- ✓ The shortcut is moved: the item is duplicated to the new location. The new item is **ACTIVE**. The old item will be **INACTIVE** if there is no file or shortcut at the old location.



Email Archive

Today companies have a growing need to create a safe archive for storing their company documents (mainly accountant documents). The reason for this growing demand is that these documents must be accessible during a certain period of time determined by the regulations of the country and of the company itself. contentACCESS Email Archive solution offers long-term storage of emails with easy search (over contentWEB) and retrieval capabilities saving the space on the Exchange server. For the moment the following store types are supported: Disk Store, inPoint, iTernity, Easy and Perceptive. Processing is ensured both from the local Exchange servers, or from the cloud (O365). These archived documents can be also accessed/restored/recovered from the archive in case of need. Restore and recovery functions are ensured either with automatically running jobs, or they can be restored manually. contentACCESS is a brilliant solution for archiving emails into supported or any implemented third party storages.

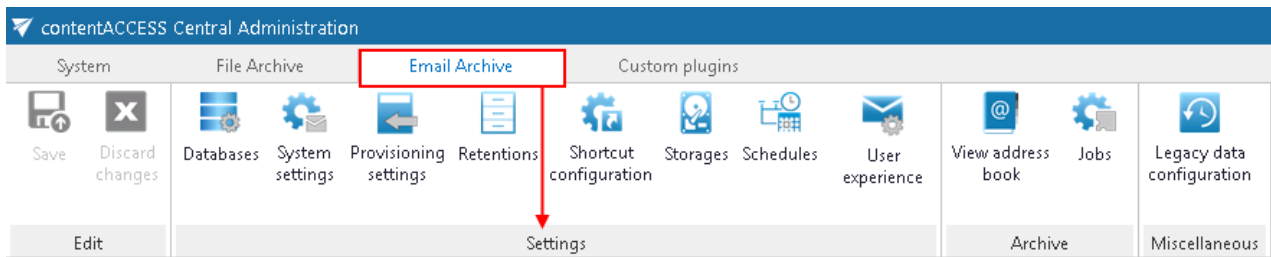
There are **two main methods of archiving** available with contentACCESS Email Archive:

- ✓ **Archiving by scheduled jobs**, which are configurable in the contentACCESS Central Administration
 - archiving process running in the background according to pre-defined settings.
- ✓ **Manual archiving/restore directly from MS Outlook** with the help of **Mail app** feature (in case of Exchange 2013 or higher) or **OWA 2010 extension** (if Exchange 2010 is used).

The following **processing types** are available when archiving from the Exchange server:

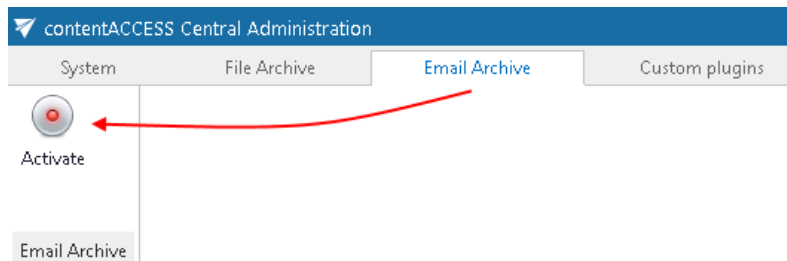
- ✓ **Archive with keeping the original item** in the source location – this processing method is generally used to archive emails younger than 1 year.
- ✓ **Archive with shortcutting method** (transparent shortcuts in case that MS Outlook is used; HTML shortcuts in case that MS Outlook can't be used (OWA) – shortcuts are used by archiving mailbox items, which are older than 1 year, but younger than 2 years and must be easily accessed without a need to search for them in the archive; it also helps to save storage space.
- ✓ **Archive with delete method** – the mailbox items older than 2 years are usually deleted from the source location (but they are stored in the archive during the required retention time).

The mandatory email archive settings can be done directly from **Email archive** tab → **Settings** group (Screenshot A).



Screenshot A: Required settings in email archive

The steps described in section “[Important settings before creating an Email Archive job](#)” will lead you through the settings that need to be done before starting to configure an Email archive job. When navigating to the **Email archive** tab for the first time, the user needs to activate Email archiving with a click on **Activate** button (Screenshot B).



Screenshot B

With this action a provisioning job will be automatically created which will perform necessary synchronizations in the background.

Important settings before creating an Email Archive job

- 1) It is required to install the proxy (refer to section “[Installing the Proxy server](#)”).
- 2) Navigate to **System** tab → **Tenants** group and make sure that a tenant is created and a user to this tenant is associated (for more information refer to sections “[Tenants in contentACCESS](#)” and “[How to provide access to a tenant](#)”).
- 3) Also make sure that the needed database(s) are created (for more information refer to section “[How to create/configure databases – All databases](#)”).
- 4) Under **System** → **Services** → **System** check if the Database, FQDN and LDAP settings are well configured (for more information navigate here: “[System](#)”).
- 5) Configure the mandatory settings accessible in the **Email Archive** → **Settings** group. The configuration logic is from left to right. If you follow this logic, then all the necessary configuration will be done for the next step.

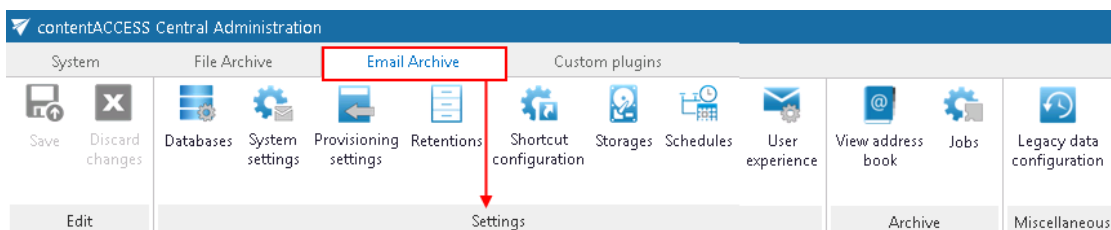


Note: These configurations are described in the details in this section below.

- 6) Assign a database and storage to the mailbox that will be archived (for more information refer to section “Database and store assignment in email archiving”; if a database and storage has not been assigned manually, the first running email archive job will assign them to the mailbox.

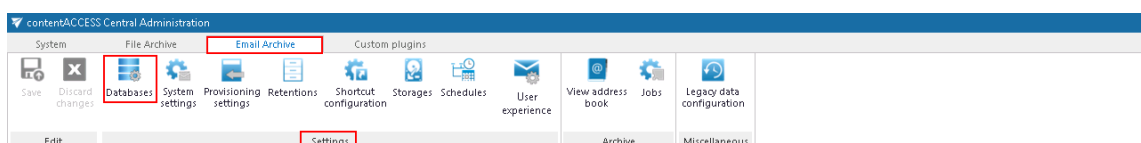
Email archive settings: Navigate to **Email Archive → Settings** group. Here can be set the mandatory settings and many useful criteria for automated email archiving:

- ✓ Tenant database connections can be configured;
- ✓ System settings can be performed;
- ✓ Provisioning settings can be set;
- ✓ Retentions can be created; the retentions configured here can be selected on the jobs’ configuration page;
- ✓ Shortcuts and further processing types can be configured; the processing types configured here can be selected on the jobs’ configuration page;
- ✓ Schedulers can be set; the schedulers configured here can be selected on the jobs’ configuration page;
- ✓ and User experience configurations can be accessed from here, too.



Database settings

Navigate to **Email Archive → Settings → Databases**:



Databases

Email Archive > Settings > Databases

+ new							
Connection name	Server	Type	Database	Schema	User	Is default	
TESTDB	... TANEWS	MSSQL	TEST_DB	dbo		No	
File Archive DB	... TANEWS	MSSQL	CONTENTACCESSDB_TA_FILE	dbo		No	
Store DB	... TANews	MSSQL	CONTENTACCESSDB_TA_FCE	dbo		No	
STORE REPLICATION DB	... TANEWS	MSSQL	CONTENTACCESSDB_TA_STORE REP	dbo		No	
Email Archive DB_new	... TANEWS	MSSQL	CONTENTACCESSDB	dbo		No	
Ex-employees' DB	... TANEWS	MSSQL	CONTENTACCESSDB_EX_EMPL	dbo		No	
LegacyDB	... TAPAM01	MSSQL	EXCHANGEDB	dbo	sa	No	
Email Archive DB	... TANEWS	MSSQL	CONTENTACCESSDB_TA_EMAIL	dbo		Yes	



Here can be found the full list of all accessible databases configured for the tenant. Database settings enable to choose the destination on premise or cloud, where the processed metadata will be stored. For further information how to add new databases and perform database settings please refer to section “[Databases](#)”.

System settings

General Email archive system settings are available on the **System settings** page. To configure these settings navigate to **Email Archive → Settings → System settings** on the ribbon:

contentACCESS Central Administration

System | File Archive | **Email Archive** | Custom plugins

Save | Discard changes | Databases | **System settings** | Provisioning settings | Retentions | Shortcut configuration | Storages | Schedules | User experience | View address book | Jobs | Legacy data configuration

Edit | **Settings** | Archive | Miscellaneous

a) Database settings

Database connection: ✔

b) EWS settings

Exchange server type:

Exchange server interface version:

EWS Url:

PowerShell Url:

PowerShell auth:

Max connection count:

Ignore SSL errors:

Keep connection alive:

Use explicit credentials

User name:

Password:

Confirm password:

c) General settings

Use forest wide queries:

Default restore method: In-place restore. Restore data into the shortcut.
 Create new item and replace the shortcut.

d) Exclude message classes

Exclude message classes: Mails Posts Documents Appointments Contacts Distribution list Tasks

Exclude custom message classes:

Custom message classes



a) **Database settings:** Select the Email archive database from the dropdown list, that you have already configured on *Email Archive* → *Settings* → *Databases* page (in our case it is database “Email Archive DB”). This selected database will be used by the provisioning job. The provisioning job will store here the metadata during the synchronization process.

b) **EWS settings:**

Under **Exchange server type** and **Exchange server interface version** select the type and version of the server where your email provider is running.

Then enter the **EWS URL**, **PowerShell URL** and the **PowerShell authentication**. These data must be requested from the email provider that you use.

Under **Max. connection count** option the user may define, how many parallel connections will be maintained by the system when connecting to PowerShell.

If you do not have a valid certificate, you can check the **Ignore SSL errors** checkbox.

Keep connection alive: If it is turned on, then the connection between contentACCESS and the Exchange server is cached, which increases the performance. If the Exchange is load balanced, some requests can land on another Exchange which causes errors in contentACCESS. In these cases unchecking the keep alive option will destroy the connection after each request and will rebuild it on the next request.

- If you are communicating with **one Exchange server**: **turn it on** to increase the performance
- If you have a **load balanced Exchange environment** and there are **communication problems** with the Exchange: it is recommended to **turn it off**

Further enter the applicable **User name** and **Password** to connect to the Exchange (use explicit credentials or log in under service-credentials).

We recommend to run a test connection via **Test** button.

Important!!! The user set under *Exchange connections* must have a full access to the mailbox(es) that he/she would like to archive. Provisioning job requires to have “View-Only Organization Management” right on the Exchange. Role “Org Custom Apps” must be assigned for the EWS user if [Mail app](#) will be also used. This role enables an administrator to install and manage custom apps for the organization (read more about the role [here](#)).

c) **General settings:**



Use forest wide queries: This option allows to list the users and groups in other child domains. The option is available by On-premise Exchange server type only.

Many big companies are separating the users from resources into multiple child domains. Without that option the email provisioning will search only the current domain (where the MS Exchange is installed) but not the others. Using this option, the searching will be extended to look into other domains too. This option has some impact on the provisioning performance.

Default restore method: The administrator may decide the default restore method here. The data can be restored either into the existing shortcut (in-place restore), or a new item can be created. The default setting is used by the Email archive restore and Shortcut synchronization jobs.

d) **Exclude message classes:** Enables to exclude certain message classes from the email archiving process **on the level of the tenant**. This feature can be quite useful for companies who have a policy, that certain message classes, e.g. Contacts, Tasks etc. mustn't be archived. Here you can also **exclude custom message classes**. E.g. if your company already has a third party archive, then you can exclude these already archived emails from the re-archiving process. Wildcards are also supported in the exclude message class list. Supported formats are: contains: *Test*; EndsWith: *Test; StartsWith: IPM*.

Important: In case of **custom Exchange solution(s)** used for emails the **custom email properties will not be archived!** The recommended solution: do not archive these emails and/or use the exclude feature for these custom message classes.

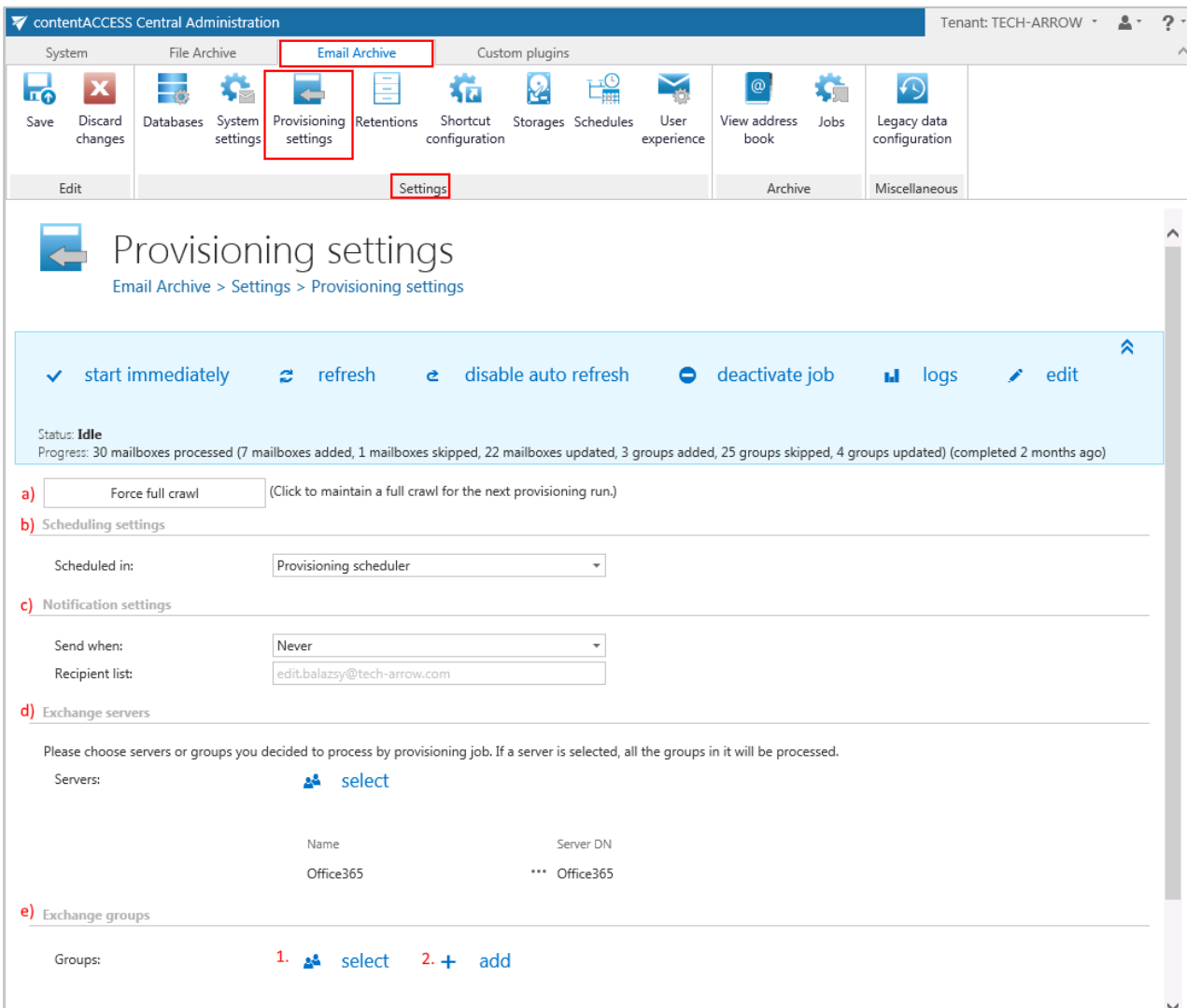
Important: It is important to bear in mind that the message class settings performed within **Email Archive → Settings → System settings**, under section **Exclude message classes** will always take priority over the message class filtering configurations of an archiving job.

Provisioning settings

The mailbox provisioning job is an elementary job, which is intended to extract Exchange groups and subgroups on the Exchange server, and synchronize their changes with contentACCESS. For example, if a new user has been added to an Exchange group which is under archiving process, the provisioning job will “point out” this change and the mailbox of this new user will be crawled/archived automatically. Provisioning job will synchronize the mailbox permissions as well.

In contentACCESS, a provisioning job is created automatically when activating email archive for the first time.

Navigate to **Email Archive** → **Settings** → Provisioning settings:



contentACCESS Central Administration Tenant: TECH-ARROW

System File Archive **Email Archive** Custom plugins

Save Discard changes Databases System settings **Provisioning settings** Retentions Shortcut configuration Storages Schedules User experience View address book Jobs Legacy data configuration

Edit **Settings** Archive Miscellaneous

Provisioning settings

Email Archive > Settings > Provisioning settings

start immediately
 refresh
 disable auto refresh
 deactivate job
 logs
 edit

Status: **Idle**
 Progress: 30 mailboxes processed (7 mailboxes added, 1 mailboxes skipped, 22 mailboxes updated, 3 groups added, 25 groups skipped, 4 groups updated) (completed 2 months ago)

a) (Click to maintain a full crawl for the next provisioning run.)

b) Scheduling settings

Scheduled in:

c) Notification settings

Send when:

Recipient list:

d) Exchange servers

Please choose servers or groups you decided to process by provisioning job. If a server is selected, all the groups in it will be processed.

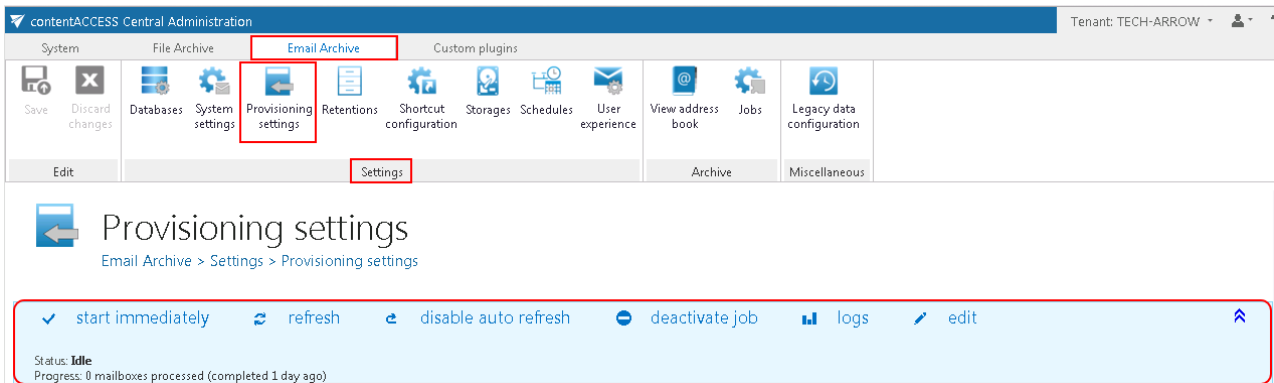
Servers:

Name	Server DN
Office365	*** Office365

e) Exchange groups

Groups: 1. 2.


The **status bar** of the provisioning job offers the following options:



If a scheduler has not been selected, the provisioning job can be still started (and also stopped) manually with the “start immediately/stop” control button. For manual refresh of provisioning progress information, click on “refresh” button. To enable/disable auto refresh in every 5 seconds, click on “enable auto refresh”/“disable auto refresh” button. The provisioning job can be also deactivated with the “deactivate job” button. A deactivated job will not start neither automatically, nor can be started manually. The “edit” button is used to select the node, where provisioning job will be run. The user may also rename the provisioning job from here. To view further event details of provisioning job (and also to detect any potential failures/errors in the provisioning events) click on “logs” button. This will redirect you to the monitoring page, where the last run of the provisioning job will be preselected, and the last events will be shown in the events table.

Runs Events: Run in Mailbox Provisioning Job 8/10/2015 5:33:35 PM

#	Start date	End date	Date	Title	Description
1	8/10/2015 5:33 PM	8/10/2015 5:34 PM	8/10/2015 5:34 PM	Plugin was finished successfully	Plugin.MailboxProvisioning
2	8/3/2015 1:39 PM	8/3/2015 1:39 PM	8/10/2015 5:34 PM	contentACCESS user skipped from permission sync	User 'new user' permissions can't be set because the user SID could not be resolved.
3	7/31/2015 12:39 PM	7/31/2015 12:39 PM	8/10/2015 5:34 PM	contentACCESS user skipped from permission sync	User 'MA' permissions can't be set because the user SID could not be resolved.
4	7/15/2015 10:54 AM	7/15/2015 10:54 AM	8/10/2015 5:34 PM	contentACCESS user skipped from permission sync	User 'sa' permissions can't be set because the user SID could not be resolved.
5	7/15/2015 10:52 AM	7/15/2015 10:52 AM	8/10/2015 5:34 PM	contentACCESS user skipped from permission sync	User 'administrator' permissions can't be set because the user SID could not be resolved.
6			8/10/2015 5:34 PM	Updating mailbox	Updating mailbox: '26 (#vladimir.werskov@tech-arrow.com)' in DB.
7			8/10/2015 5:34 PM	Updating mailbox	Updating mailbox: '25 (#tfs@TECHARROW.onmicrosoft.com)' in DB.

With the arrows mark () at the right side of the status bar the user may collapse or expand the progress information about the provisioning job’s running. The status bar’s last state is always stored, and the last state will be opened by navigating to the page again.

The following configuration sections are available on the **Provisioning settings** page:

- a) **Force full crawl:** The Exchange provisioning job is performing an incremental crawl of the Exchange objects (mailboxes and groups). This means that if an object is not changed, it is not necessary to access it. This makes the provisioning job faster and helps to use less resources. In some situations however it is necessary to perform a full crawl of the objects – need to synchronize every object, independently whether it was changed or not from the last synchronization. This can



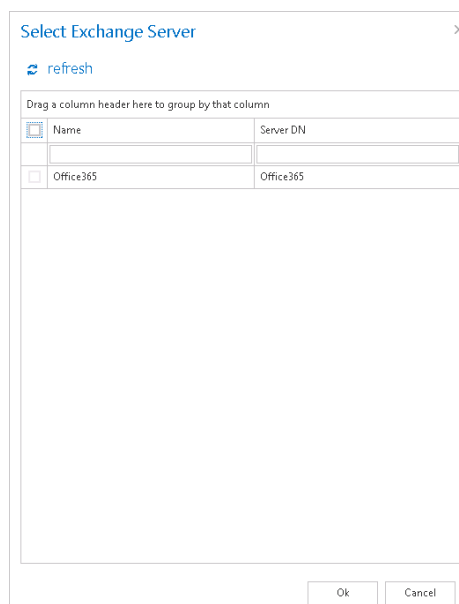
be done with a single click on the „force full crawl“ button, which is located under the status bar if the provisioning job.

Provisioning settings

Email Archive > Settings > Provisioning settings

On the provisioning page the user may configure the following settings to the Exchange provisioning job.

- b) **Scheduling settings:** Select the running times of the provisioning job or create a new scheduler. For more information how to configure scheduler settings please refer to section [Schedules](#) described above.
- c) **Notification settings:** If the provisioning job could not run properly due to some reasons, contentACCESS can send a warning about the problem. The notification email message will be sent to the email address that is set here under **Recipient list** option. Here you can also choose, when these email messages should be sent: only if errors occur, or when errors or warnings occur, or always, regardless of the faultless running of the provisioning job.
- d) **Exchange servers:** click on **select** option and select the Exchange servers to synchronize from the list of **Select Exchange Server** dialog.



If you select a server, then all mailboxes falling under this server and also all Exchange groups within the organization will be permanently processed by the provisioning job. This will eventually



mean that if a server is selected, then it makes no sense to select an Exchange group as well. If all settings are done, click on **OK**. The selected server can be deleted from its context menu:

Exchange servers

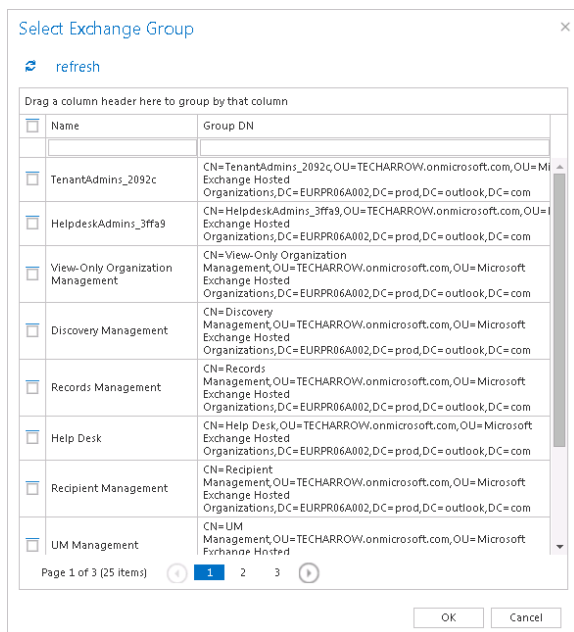
Please choose servers or groups you decided to process by provisioning job. If a server is selected, all the groups in it will be processed.
Servers: **select**

Name	Server DN
Office365	*** Office365

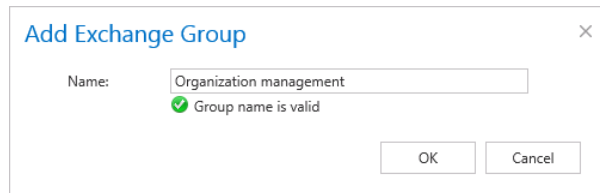
e) **Exchange groups:** all users of an Exchange server fall under an Exchange group (or can belong to even more Exchange groups simultaneously). In this section it is possible specify one or more Exchange groups to be synchronized by the provisioning job.

Group(s) can be

- **selected from the list** of all groups available on the Exchange – Click on **select** option and select the groups in the **Select Exchange Group** dialog’s list (Screenshot 1).
- **added manually** to the groups to be provisioned – Click on **+ add** and fill the group to the **Add Exchange Group** dialog manually (Screenshot 2).



Screenshot 1

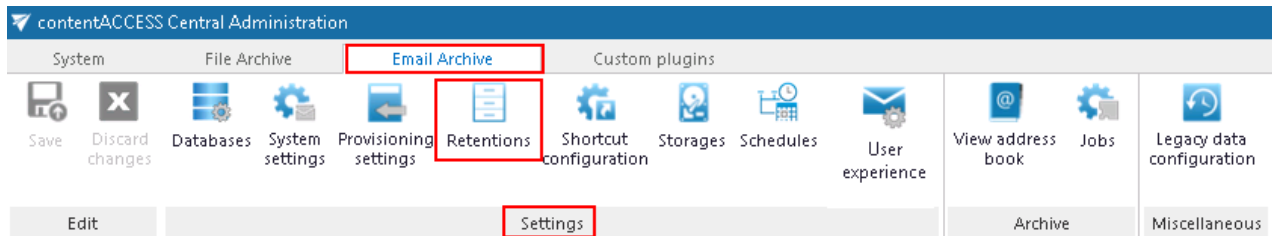


Screenshot 2

Note: If you selected a server one step earlier, then all groups falling under this server will be processed and it makes no sense to select groups as well.

Retention settings

Navigate to **Email Archive** → **Settings** → **Retentions**:



Retentions

Email Archive > Settings > Retentions

+ new

Retention name	Retention time in months	Description	Is default
Retention required by law (10 years)	120	...	Yes
2 years	24	...	No
1 year	12	...	No

Retention settings enable to adjust the duration of storing of the email message. For adding new retention attribute click on **+ new** and refer to section “[Retentions](#)” above for further configurations.

Shortcuts in email archiving

In contentACCESS's email archive solution the emails can be archived with one of the following archiving methods. They can be

- replaced by shortcut; there are 2 shortcut types that can be used: normal shortcut and HTML shortcut;
- completely deleted;
- kept in the original file location.

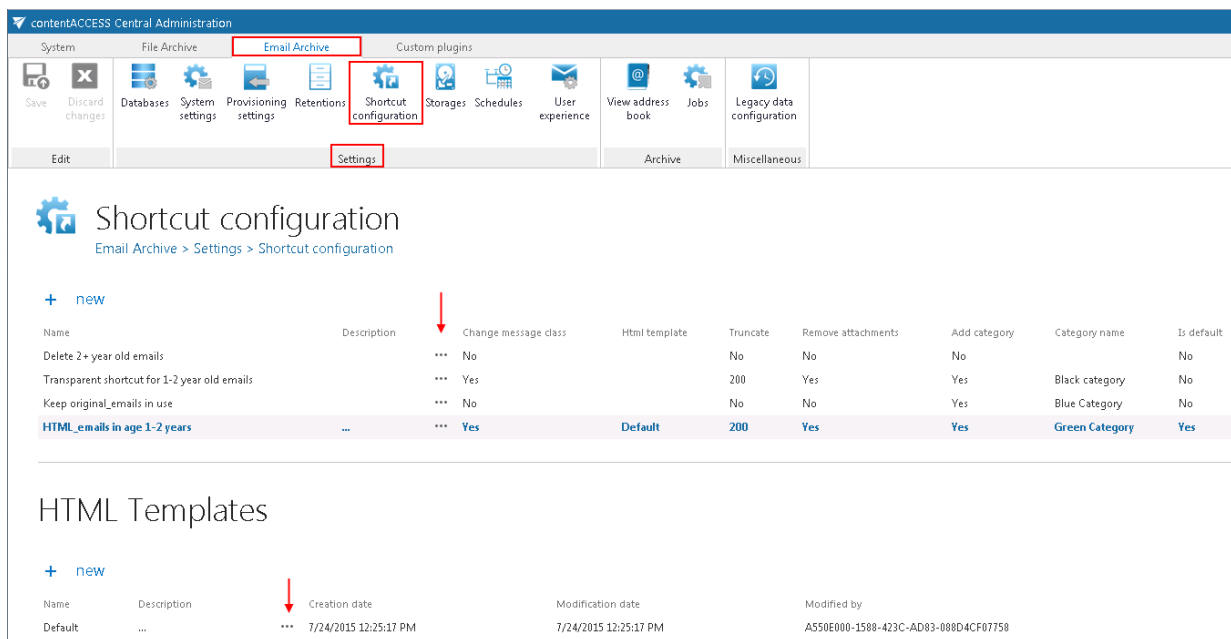
Mailbox items younger than 1 year are archived continuously on a daily base, but the originals are kept in the original mailbox folder. From 1 to 2 year old items are usually archived with the shortcutting method, to ensure an easy access to them in case of need. They enable to open the already archived items directly from the mailbox without a need to browse for them in the archive. Another advantage of shortcuts is the spared storage space. They help to unburden Exchange servers from numbers of redundant documents which are not in use any more. If the mailbox items are older than 2 years, then they are usually deleted. It depends on the customer, how he combines these processing methods.

These archive methods and shortcut types can be configured on the **Shortcut configuration** page. Navigate to **Email Archive → Settings → Shortcut configuration** control button to open it. On this page, under **Shortcut configuration** section you may find the full list of already configured shortcuts. The grid also contains the configuration information of the respective shortcuts. The bold color of a shortcut means, if it was set as default (i.e. if they are used by manual archiving).

Under the **HTML Templates** section you may see all HTML templates configured for the HTML shortcuts. The date of creation, modification and the modified by information can be viewed in the templates' grid, too.

The shortcuts that the admin configures on this page can be selected when configuring an email archive job instance on the job's configuration page.

The listed items can be deleted/edited from their context menu, with a click on the ellipses (...).



Shortcut configuration

Email Archive > Settings > Shortcut configuration

Name	Description	Change message class	Html template	Truncate	Remove attachments	Add category	Category name	Is default
Delete 2+ year old emails	...	No		No	No	No		No
Transparent shortcut for 1-2 year old emails	...	Yes		200	Yes	Yes	Black category	No
Keep original_emails in use	...	No		No	No	Yes	Blue Category	No
HTML_emails in age 1-2 years	...	Yes	Default	200	Yes	Yes	Green Category	Yes

HTML Templates

Name	Description	Creation date	Modification date	Modified by
Default	...	7/24/2015 12:25:17 PM	7/24/2015 12:25:17 PM	A550E000-1508-423C-AD03-008D4CF07758

To create a new shortcut, click on **+ new** under the **Shortcut configuration** section, and select a shortcut type from the **Type** list of the **Shortcut configuration** dialog.

There are 4 types of shortcuts in contentACCESS's Email Archive, namely:

- ✓ **Normal shortcut**
- ✓ **HTML shortcut**
- ✓ **Journal shortcut**
- ✓ **Keep original shortcut**



Shortcut configuration ✕

Name:

Description:

Type:

Normal shortcut

HTML shortcut

Journal shortcut

Keep original

Change message class:

Remove attachments:

Add category:

Normal shortcut: Normal shortcut is completely transparent with the original message, after restoring/reopening the user cannot see any change between the original email and the shortcut version. This is the recommended shortcut type if the end user uses MS Outlook. This type of shortcut works in:

Normal shortcut			
	Installed prerequisites	Are attachments directly accessible? (direct preview)	Is email body accessible?
Outlook 2013 or higher	Mail app* or Outlook forms	Yes	Yes
	Nothing installed	No	Yes
OWA 2013 or higher	Mail app	Yes	Yes
	Nothing installed	No	Yes
Outlook 2010	Outlook forms	Yes	Yes
	Nothing installed	No	Yes
OWA 2010	OWA 2010 extension	Yes	Yes
	Nothing installed	No	Yes

*Exchange 2013 (or higher) requirements

MS Outlook 2013 or higher: To display archived attachments the user needs to have the contentACCESS Outlook form **or** the Mail app (refer to section [User experience](#)) installed in Outlook. If not installed, the email body will be still accessible.



MS Outlook 2010: To display archived attachments the user needs to have the contentACCESS Outlook form installed in Outlook. If not installed, the email body will be still accessible.

For more information how to install contentACCESS Outlook forms please refer to installation guide accessible [here](#). Regarding system requirements: MS Outlook 2010 or 2013 is needed. The form should work on both 32 and 64 bit Outlook versions. On mobile devices the form is not supported.

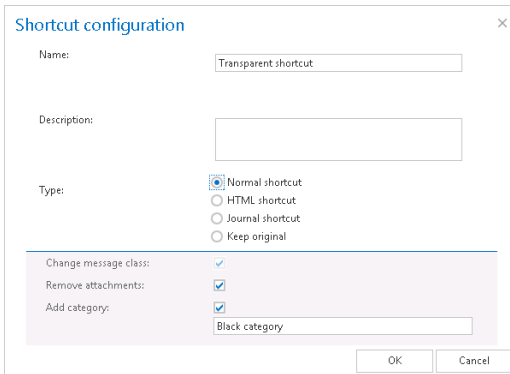
OWA 2013 or higher: To display archived attachments the user needs to have Mail app installed. For more information refer to section [User experience](#). If not installed, the email body will be still accessible.

OWA 2010: To display archived attachments the user needs to have contentACCESS OWA integration installed. For more information refer to section [User experience](#). If not installed, the email body will be still accessible.

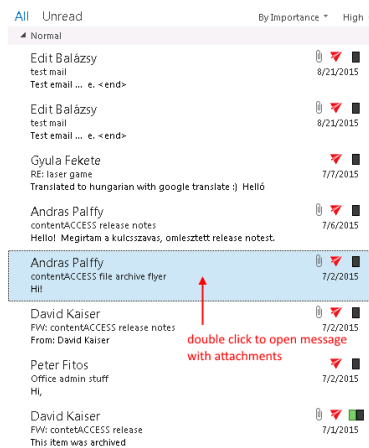
If the **Remove attachments** function was turned on during the configuration of the shortcut, the attachments will be still accessible by a double click on the archived message, in the compose window. (In case if the correct extension – Outlook forms, Mail app or OWA 2010 extension – is installed.)

On the normal shortcut's configuration dialog the **Change message class** check box is selected by default. With this setting the restore from shortcuts is ensured.

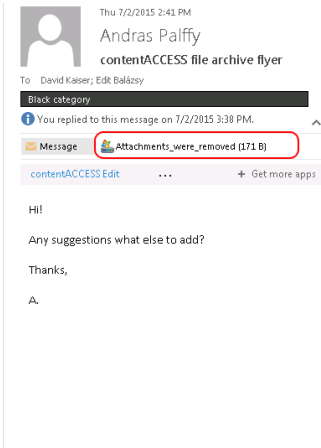
It is also possible to set here, if the attachment of the processed email should be removed (check **Remove attachments**) or should be kept (leave **Remove attachments** unchecked). Removed attachments can be retrieved by double clicking on the archived email, in the compose window. If you check the **Add category** option in the **Shortcut configuration** window and enter a category into the textbox, then archived emails will be marked with this category (e.g. if Black category is selected, then emails will be marked with black color). After filling all required data in the **Shortcut configuration** window click **OK**.



Screenshot A:
Normal shortcut used by an email archive job



Screenshot B:
Original email replaced with the normal shortcut in the user's mailbox



HTML shortcut: If the user is archiving with a job using an HTML shortcut, then the body of the original email message will be replaced with an HTML file containing 2 links to the original email message and the attachment(s); one link opens the original email as an .msg, second opens it as .eml.

Note: The .eml link ensures the compatibility with a wide range of applications and operating systems (compatibility with MAC OS is also ensured).

If the user has MS Outlook and the contentACCESS Outlook forms are installed, then the HTML-shortcut will display the email message in the same way as the normal shortcut. The user cannot see any difference between them. However, in certain situations it is not possible to use Outlook to check our emails. In these circumstances the user cannot use normal shortcuts for accessing emails. However, HTML-shortcuts can be still used to access email bodies and also attachments with the help of links. Emails can be checked for example with OWA. To ensure an easy access to the archived items in any cases, it is highly recommended to use this shortcut type.

The following table gives a general overview how the archived emails and attachments can be accessed with the HTML shortcuts if MS Outlook or OWA (Outlook Web Access) is used:

HTML shortcut				
	A) The following prerequisites are installed	The attachments are accessible	B) The prerequisites are not installed	The attachments are accessible
Outlook 2013	Mail app* or Outlook forms	In direct preview	-	Over links



(or higher)				
OWA 2013 (or higher)	Mail app	In direct preview	-	Over links
Outlook 2010	Outlook forms	In direct preview	-	Over links
OWA 2010	OWA 2010 extension	In direct preview	-	Over links

*Exchange 2013 or higher requirements

MS Outlook 2013 or higher: To transparently view the archived items (the body and the attachment) the user needs to have the contentACCESS Outlook forms or the Mail app installed in Outlook.

MS Outlook 2010: To transparently view the archived items (the body and the attachment) the user needs to have the contentACCESS Outlook form installed in Outlook.

OWA 2013 or higher: To transparently view the archived items (the body and the attachment) the user needs to have Mail app installed. For more information refer to section "[User experience](#)".

OWA 2010: To transparently view the archived items (the body and the attachment) the user needs to have contentACCESS OWA integration installed. For more information refer to section "[User experience](#)".

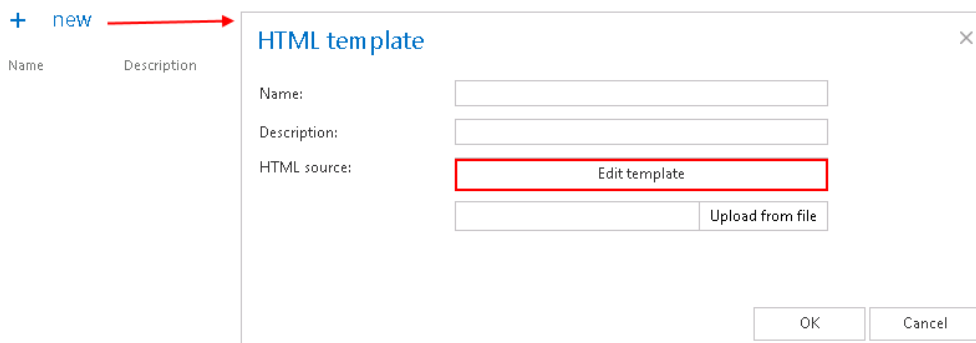
If the extensions are not installed, then the body and the attachment are still accessible over the shortcut links.

If the **Remove attachments** function was turned on, the attachments are still accessible by a double click on the archived message, in the compose window.

Before you start to configure the HTML shortcut, HTML template(s) must be created. You can use a default HTML or to customize a new HTML template.

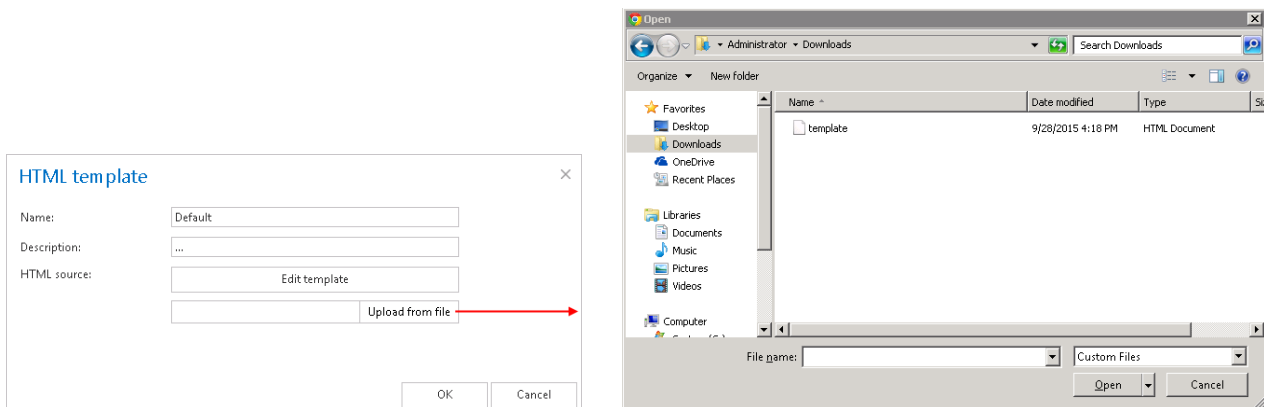
a) A default HTML template can be downloaded automatically with a click on **+ new** under the **HTML Templates** section, then with clicking on the **Edit template** button in the **HTML template** dialog.

HTML Templates

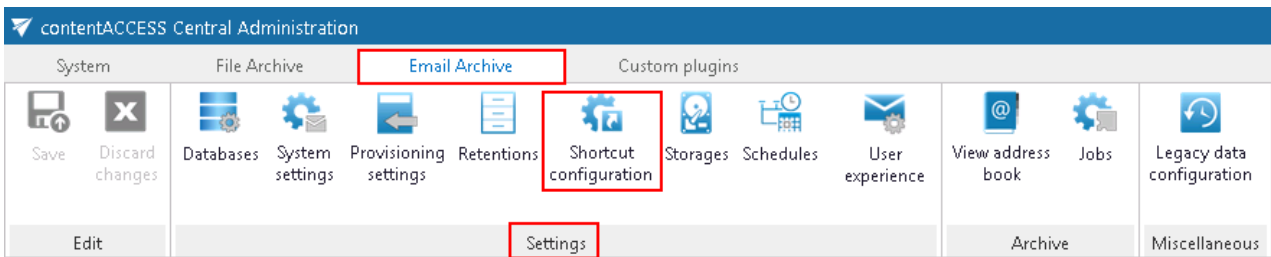


- b) For creating a custom-HTML click on **+new** under the **HTML Templates** section, then click on **Edit template** button in the HTML template dialog, and download a default template first. Save it somewhere on your disc. Download an HTML editor from the web and edit your template, then save it.

Upload the default/custom HTML template to the template list: Under **HTML Templates** section click on **+new**. The **HTML template** dialog will open. Here give a **Name** for the HTML, and fill the **Description** field (not required), then click on **Upload from file** and browse for the desired template that you have created. Upload it to the template list.



Once your desired template is uploaded, a custom HTML shortcut can be configured. Navigate to **Email Archive** → **Settings** → **Shortcut configuration** and click on **+ new** under the **Shortcut configuration** section.

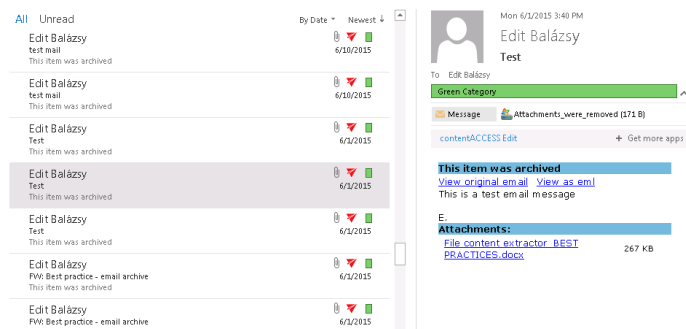
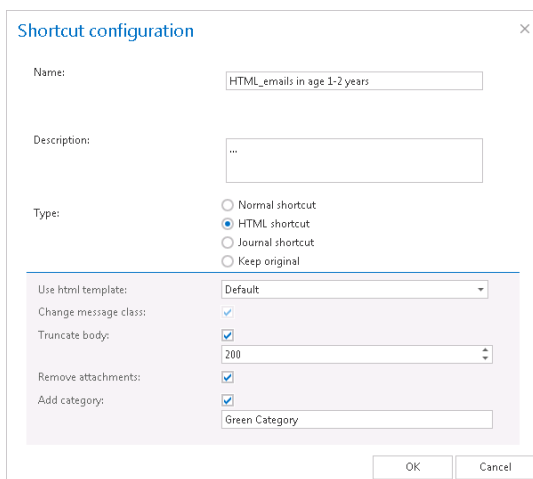


Shortcut configuration

Email Archive > Settings > Shortcut configuration



The **Shortcut configuration** dialog opens. Enter a name for the shortcut into the **Name** field. In the **Use html template** dropdown list select the HTML that you have created. The **Change message class** textbox is selected by default. This enables to restore the archived emails from the shortcuts. You can also set here if the attachment of the processed email should be removed (check **Remove attachments**) or should be kept (leave **Remove attachments** unchecked). Removed attachments can be also retrieved by double clicking on the archived email, in the compose window. If you want a certain number of characters to be included in the shortcut, check the **Truncate body** option and enter a value (e.g. 200) here. During the HTML shortcut configuration the user can set how to mark the archived emails. The archived email will be marked with the category specified under option **Add category** (in our case the archived emails will get a green category).



Screenshot A:

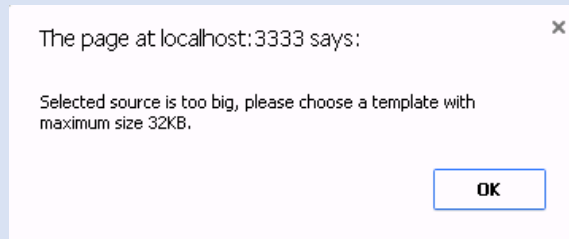
HTML shortcut used for archiving 1 to 2 year old emails

Screenshot B:

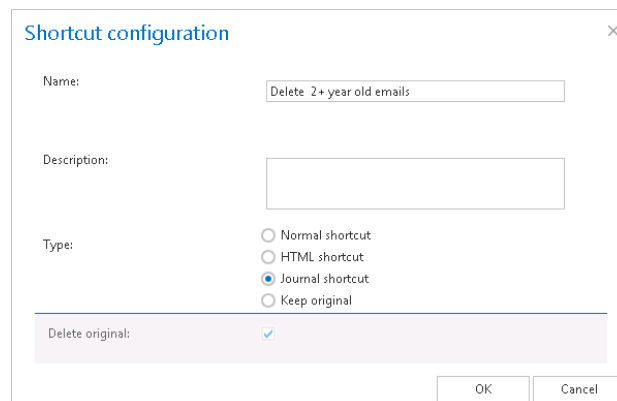
Email replaced with the HTML shortcut in the user's mailbox

After filling all required data in the **Shortcut configuration** window click **OK**.

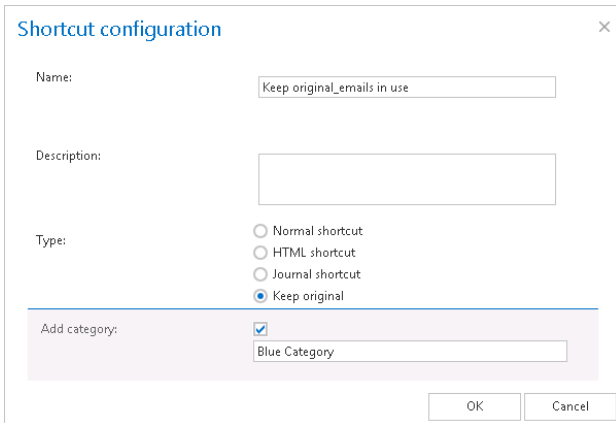
Note: always keep in mind that the size of a HTML-template cannot exceed **32 kB**. If the template is edited with MS WORD, then numbers of redundant informations will be included in the template, which might easily cause, that the maximum filesize will be exceeded. From this reason, it is not recommended to use MS WORD for editing the HTML-templates. If you got a Warning such as this one below, then delete the template and try to edit a new default one with an alternative HTML-editor.



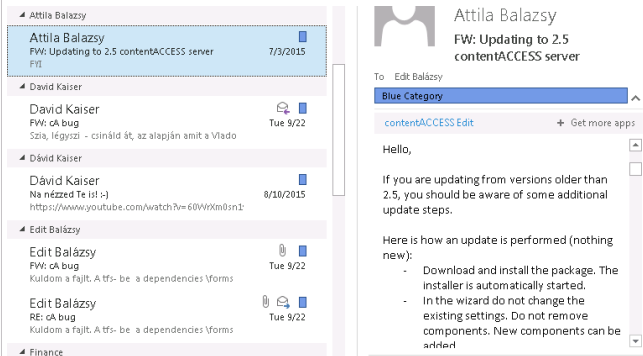
Journal shortcut: With using this option the original message will be automatically deleted from the original location. The **Delete original** checkbox is inactive, and selected here by default. This processing type is commonly used when archiving mailbox(es), which won't be used in the future (e.g. if the mailbox user/employee leaves the company), or the mailbox items are older than 2 years. It is commonly used for archiving Exchange server journal mailboxes as well.



Keep original method: With using this option the original document will be kept in the original location/folder. It is recommended to select this processing type for archiving emails younger than 1 year. With checking the **Add category** checkbox, and specifying a custom category the user may set up a custom category for the archived email message (e.g. if the "Blue category" is set as on the screenshot B below, then email will be marked with this color).



Snapshot A:
Keep original method used for archiving 2+ year old emails



Snapshot B:
Untouched originals marked with blue

Editing of shortcuts: Select the shortcut from the grid, which you would like to modify, and open its context menu.

Shortcut configuration

Email Archive > Settings > Shortcut configuration

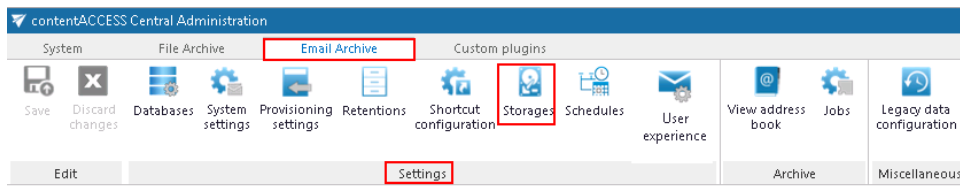
+ new

Name	Description	Change message class	Html template	Truncate	Remove attachments	Add category	Category name	Is default
Delete 2+ year old emails		... No		No	No	No		No
Transparent shortcut for 1-2 year old emails		... Yes		200	Yes	Yes	Black category	No
Keep original_emails in use		...		No	No	Yes	Blue Category	No
HTML_emails in age 1-2 years	Default	200	Yes	Yes	Green Category	Yes

To modify shortcut settings, click on **Edit** and change the settings in the **Shortcut configuration** dialog, so that the shortcut contains the information that you require. You can also set the selected shortcut as default from the shortcut's context menu. This is a must-to setting, if you would like to archive/restore the emails manually using the Mail app or OWA integration (more information [here](#)).

Storing of archived emails

Navigate to **Email Archive → Settings → Storages**. The grid of already configured email archive storages can be found on this page. Here you can set up a new storage, where the binaries will be stored during the archiving process. For further configurations how to set new storages check section "[Storages](#)" above.



Storages

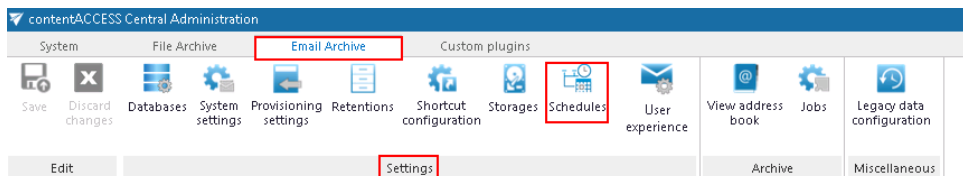
Email Archive > Settings > Storages

+ new

Storage Name	Storage Type	Is default
Email Archive store	*** Store.Disc	Yes
File archive store	*** Store.Disc	No
SP archive store	*** Store.Disc	No
Ex-employees' storage	*** Store.Disc	No

Creating email archive schedulers

Navigate to **Email Archive** → **Settings** → **Schedules**:



Schedules

Email Archive > Settings > Schedules

+ new

Name	Type	Description
Provisioning scheduler	*** OneTime	Running on 1/1/2000 12:00:00 AM
Always	*** AlwaysRun	Always running in every X minutes
Every day at 6 PM	*** WeekMapWithRepeat	Running based on the weekmap and continuously repeat in every X minutes
On 7th of Sept	*** OneTime	Running on 9/7/2015 12:00:00 AM
Daily at 5 PM	*** WeekMapWithRepeat	Running based on the weekmap and continuously repeat in every X minutes

The already configured schedulers for automatized email archiving are listed on this page, in the scheduler's grid. With clicking on the **+ new** option, it is possible to create a new scheduler. (For more information about how to set schedulers refer to the section "[Schedules](#)" above.)

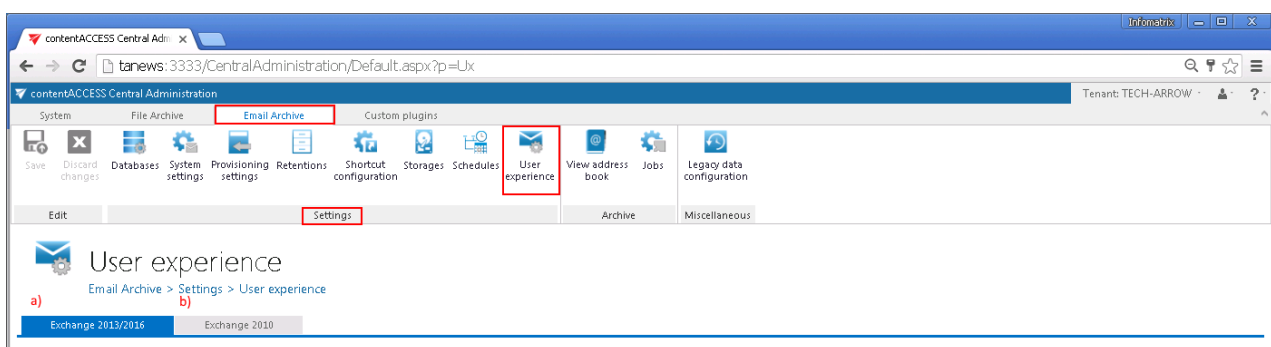
User experience

contentACCESS Email Archive may archive the emails either from Exchange 2010 or Exchange 2013 or higher. The exact Exchange version that is used is configured on the Email Archive's **System settings** page, under section **EWS settings**. The items archived and replaced with shortcuts can be accessed both from MS Outlook desktop version and OWA if the right extensions (*OWA 2010 integration* for OWA 2010 and *Mail app* for OWA 2013 (or higher) or MS Outlook desktop version



2013 or higher) are installed. Items archived with Metalogix Archive Manager Exchange Edition (MAM EE) and Email Lifecycle Manager (ELM) can be retrieved as well. To retrieve MAM EE and ELM shortcuts the given legacy retrieve service must be also installed and configured in contentACCESS. (Read more in [Legacy email archive connectors.](#))

OWA 2010 integration and Mail app can be installed on the **User experience** page of the Central Administration. Open the **User experience** page with navigating to **Email Archive** → **Settings** → **User experience** on the ribbon.



There are 2 tabs that can be opened from this page:

- a) **Exchange 2013/2016** - If this version is used, you may use **Mail app** with OWA 2013 or higher and MS Outlook desktop version (2013 or higher) directly. This ensures manual archive of mailbox items/manual restore of shortcuts directly from the mailbox. Emails and attachments archived with MAM EE and ELM can be opened from the legacy shortcuts as well if the legacy retrieve service is installed and configured. (Read more in [Legacy email archive connectors.](#))
- b) **Exchange 2010** – If this version is used, you may integrate contentACCESS with **OWA 2010**, and allow transparent opening of the shortcuts in OWA. The extension ensures manual archive of mailbox items/manual restore of contentACCESS shortcuts directly from the mailbox. Emails and attachments archived with MAM EE and ELM can be opened from the legacy shortcuts as well if the legacy retrieve service is installed and configured. (Read more in [Legacy email archive connectors.](#))

For more information about these settings read the corresponding sections below:

Exchange 2013+: Mail app in OWA 2013+ or on MS Outlook 2013+ desktop version



Mail app is a simple end-user friendly contentACCESS feature, which was designed to manually archive/restore from/to mailboxes directly in MS Outlook desktop version or OWA 2013 or higher, without any need to use an email archive job.

Mail app is running on the following platforms:

- Desktop (Windows, Macintosh – on Macintosh MS Outlook 2015+ is required)
- OWA (desktop computer, android, iOS, phone, tablet)
- Native MS Outlook app on tablets

Native Outlook app on mobiles doesn't support Mail app.

Important!! Mail app prerequisites:

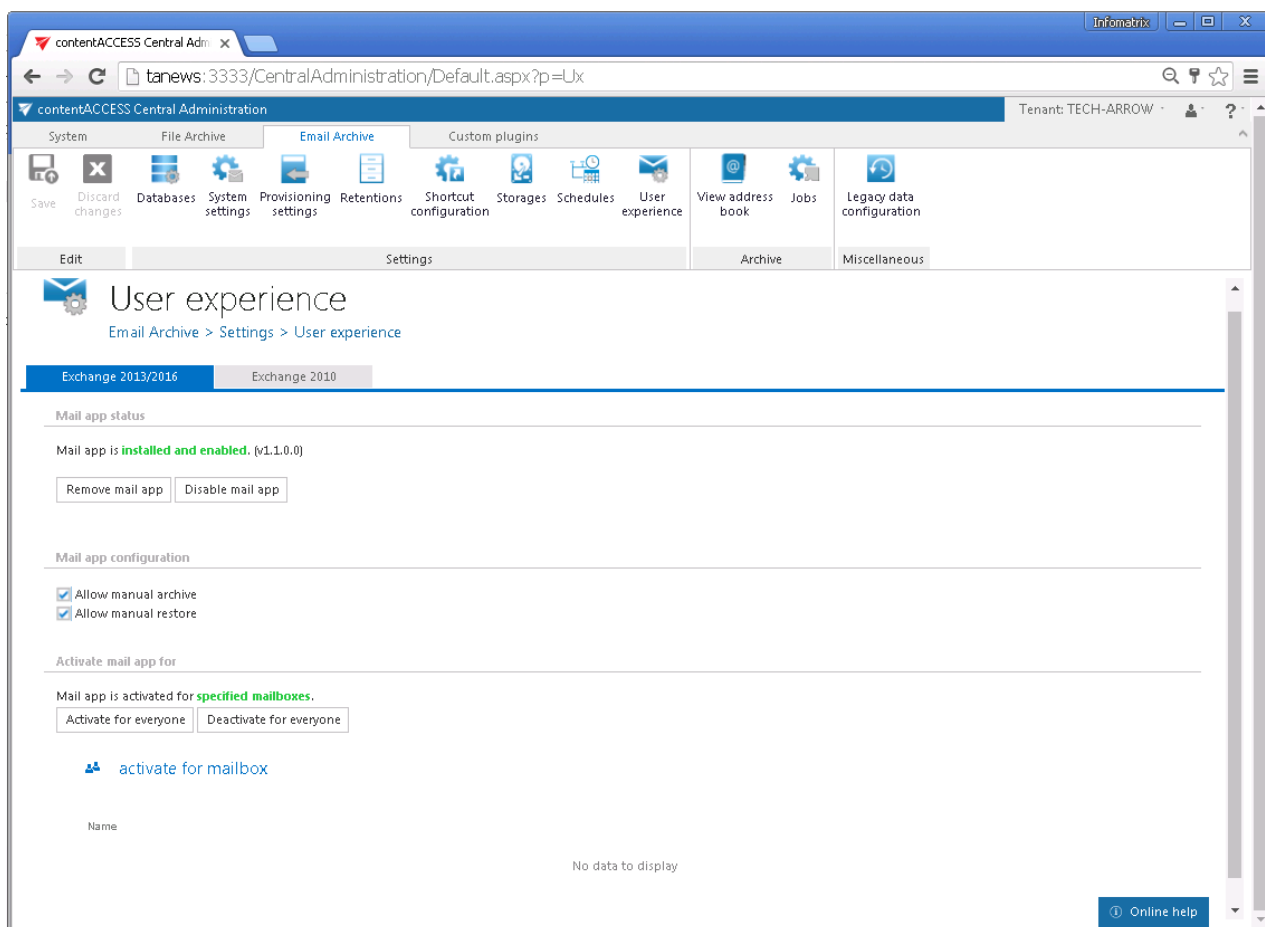
- **Exchange 2013 or later version**
- **MS Outlook 2013 or later desktop version or OWA.**
- **One of the following browser versions needed:** at least Windows Internet Explorer 9, Mozilla Firefox 12, Apple Safari 5 or Google Chrome 18.
- **Proxy installed over HTTPS connection** (refer to section "[Installing the Proxy web services](#)").
- **Default shortcut** and a **default retention** must be set in contentACCESS Central Administration.
- On the **System** page (**System** tab → **Services** group → **System** button → **External accessibility settings**) a HTTPS alias must be configured.
- Role "Org Custom Apps" must be assigned for the EWS user on the Email Archive [System settings](#) page, in section **EWS settings**. This role enables an administrator to install and manage custom apps for the organization (read more about the role [here](#)).

The administrator is required do the following configurations for manual email archiving. He has to

- 1) configure a shortcut that Mail app will use and set this shortcut as default (refer to section "[Shortcuts in email archiving](#)");
- 2) configure a retention that Mail app will use and set this retention as default (refer to section "[Retentions](#)");
- 3) install the Proxy server with HTTPS connection (refer to section "[Installing the Proxy web services](#)");

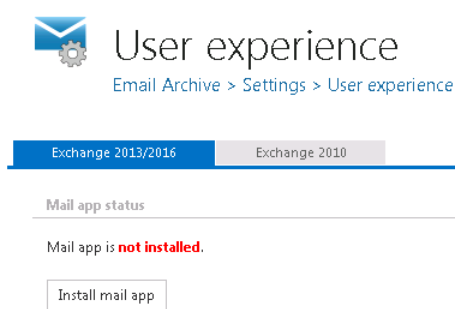
- 4) configure HTTPS based alias under External accessibility settings;
- 5) install Mail app (section **Mail app status**);
- 6) configure Mail app (section **Mail app configuration**)
- 7) Activate Mail app for the desired mailboxes (section **Activate mail app for**).

To install Mail app, navigate to **Email Archive** → **Settings** → **User experience** on the ribbon, and click on **Exchange 2013/2016** tab on the **User experience** page:

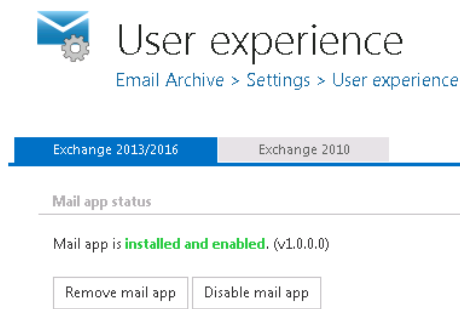


Mail app status

In section **Mail app status** you may install or remove mail app on the Exchange. To install it, click on **Install mail app** button and wait until the installation process finishes (Screenshot A). With clicking on option **Remove mail app** you can uninstall this application from the Exchange; with clicking on **Disable mail app** the application can be globally disabled (turned off) for all Exchange groups/mailboxes (Screenshot B).



Screenshot A: Mail app uninstalled



Screenshot B: Mail app installed/enabled

Mail app configuration

Once mail app is installed, you can set the mail app functionalities – manual archive and/or manual restore – to be used. This configuration will be applied globally for every mailbox. If manual archive and/or manual restore functionality is not allowed, the mailbox user can see a notification in the footer area of the mail app and the button related to the disabled functionality is hidden.

This configuration is very useful e.g. if you want to allow manual restore for the users, but want to restrict manual archiving directly from the user mailboxes.

Activate mail app for (Exchange servers/groups/mailboxes): The application is available for the user (in his mailbox) only in case if it's activated for the given user. Once Mail app is installed and the functionality is configured, you can activate it for the mailboxes that will use this application. If Mail app is disabled, the activation settings are unavailable.

Scroll down to section "Activate mail app for". Use option "Activate for everyone" if the application should be activated for every user. To activate it only for a given Exchange group/Exchange mailbox, click "**activate for mailbox**" and select the desired mailbox(es)/group(s) from the list of the **Mailbox selection** dialog. In this use case (refer to the pictures below) we have activated it for one user only.



Mailbox selection

refresh

<input type="checkbox"/>	Name	Type
<input type="checkbox"/>	Office365	Server
<input type="checkbox"/>	techarrow_all	Group
<input type="checkbox"/>	techarrow_sales	Group
<input type="checkbox"/>	Test01	Group
<input type="checkbox"/>	build_notification	Group
<input type="checkbox"/>	elm_team	Group
<input type="checkbox"/>	emailarchive	Group
<input type="checkbox"/>	Administrators notification	Group
<input type="checkbox"/>	TenantAdmins_2092c	Group
<input type="checkbox"/>	HelpdeskAdmins_3ffa9	Group
<input type="checkbox"/>	RIM-MailboxAdmins87a5acd646e1460	Group
<input type="checkbox"/>	Compliance Management	Group
<input type="checkbox"/>	Hygiene Management	Group
<input type="checkbox"/>	Discovery Management	Group
<input type="checkbox"/>	Records Management	Group

Page 1 of 4 (52 items) 1 2 3 4

OK Cancel

Mailbox selection

refresh

<input checked="" type="checkbox"/>	Name	Type
<input type="checkbox"/>	ed	
<input checked="" type="checkbox"/>	edit.balazsy	Mailbox

Begins with([Name], 'ed') Clear

OK Cancel

It is also possible to deactivate the application for all configured Exchange groups/mailboxes (option “Deactivate for everyone”)

User experience
Email Archive > Settings > User experience

Exchange 2013 Exchange 2010

Mail app status

Mail app is **installed and enabled**. (v1.0.0.0)

Remove mail app Disable mail app

Activate mail app for

Mail app is activated for **specified mailboxes**.

Activate for everyone **Deactivate for everyone**

activate for mailbox

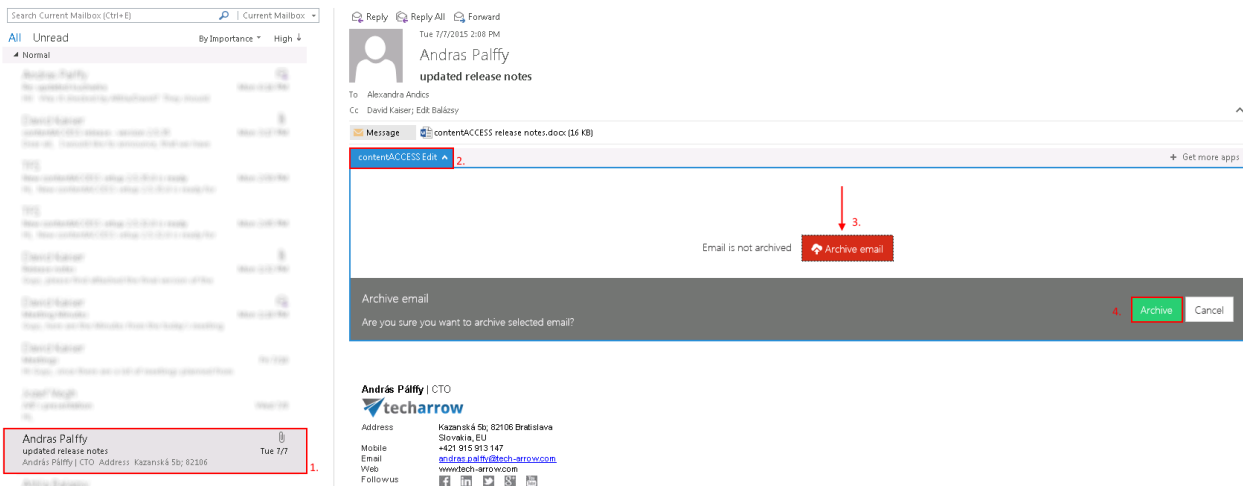
Name
Edit Balázsy

How Mail app works in MS Outlook 2013+ and OWA 2013+

After you have installed Mail app it is recommended to restart your Outlook.

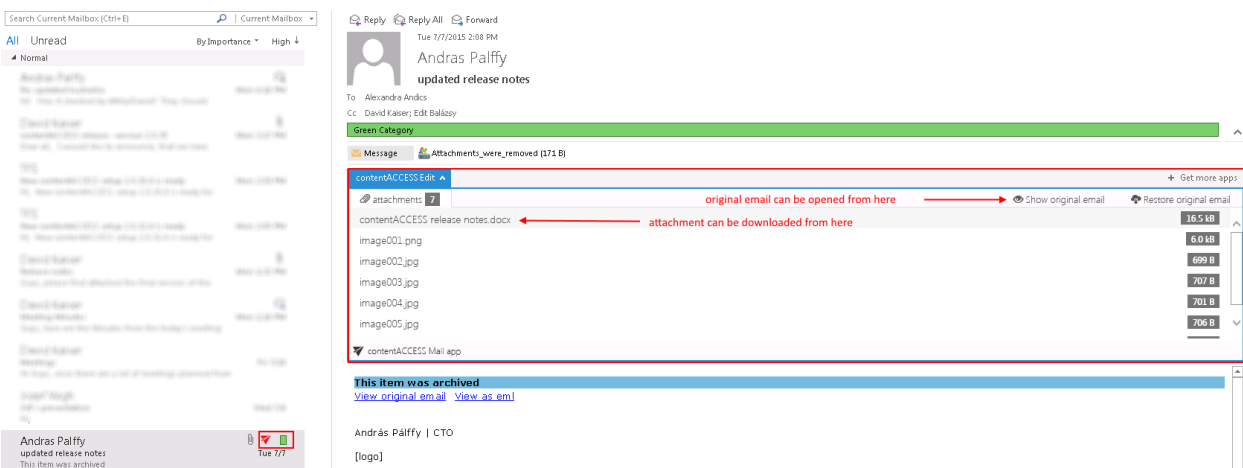


Open your Outlook desktop, and select a message including an attachment that you would like to archive manually (1). In the reading pane, click on **contentACCESS Mail app** (2)... **Archive email** (3)... **Archive** (4) buttons.

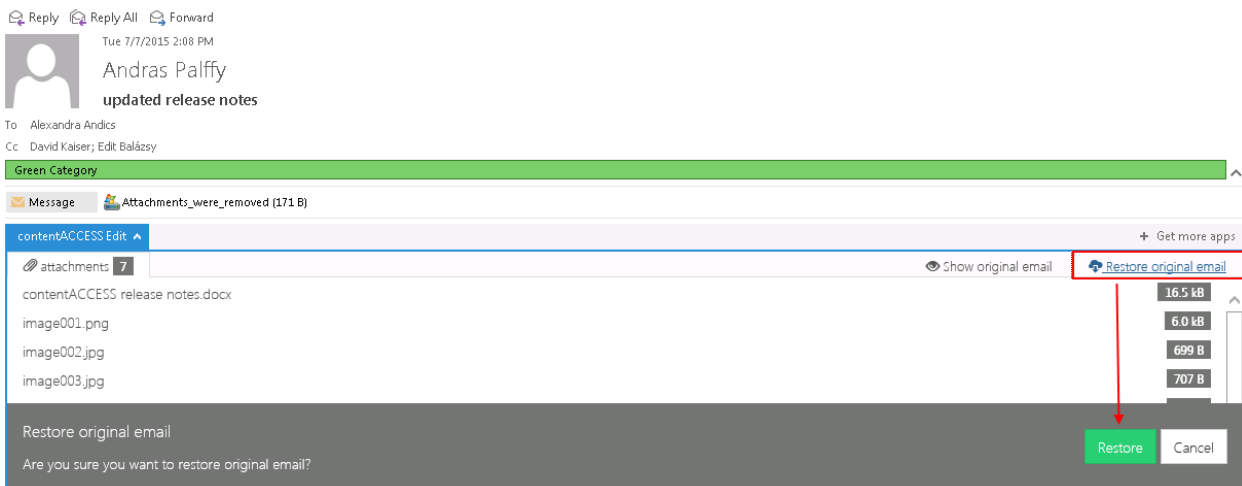


The manual archiving job will use the default shortcut and retention. As we set an HTML shortcut as default, where green category has been set, our archived email will be archived with this shortcut and will be signed with green category.

In the reading pane, click on **contentACCESS Mail app** again. To view the original email, click on **Show original email** option. To download the archived attachment, click on it in the message and it will be downloaded automatically.

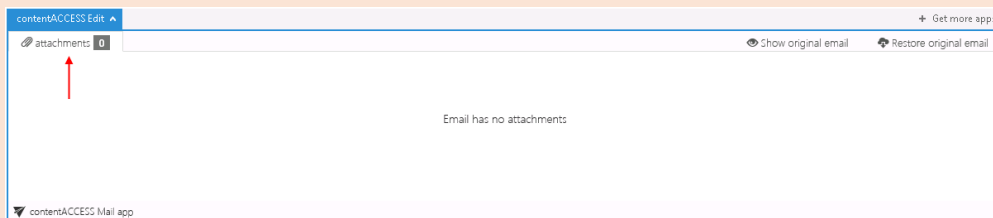


How to manually restore with Mail app? To restore already archived email manually, click on **Restore original email** → **Restore** in the same window:



Important!!! Turning on the **Change message class** option in the HTML shortcut configuration is a must if the user would like to manually restore from shortcuts, otherwise this app will not be visible in MS Outlook when trying to restore the original email.

Note: In Mail app the “split attachments” function is active by default. That means that the body of the email and the attachment are stored separately. It is good to know: if the email message containing an attachments has been previously archived by a job, where attachments were not split, then the mail app in MS Outlook will show 0 attachments.



Exchange 2010: OWA 2010 integration

With the Exchange 2010 user experience you may deploy the OWA (Outlook Web Access) support to your Exchange server. **This allows transparent opening of contentACCESS and legacy (MAM and ELM) shortcuts in OWA 2010. The mailbox items can be manually archived, and the contentACCESS shortcuts can be restored directly from the mailbox, too.**

The OWA integration feature requires to have:

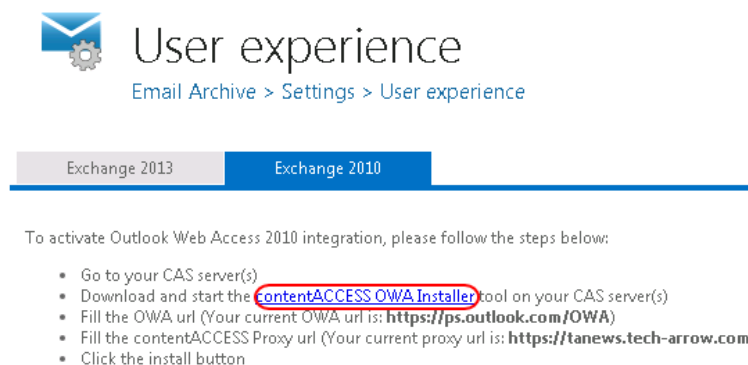
- 1) **Proxy with HTTPS connection installed** – it can be installed on the CAS 2010 (Client Access Role) server as well. The proxy will be used by the OWA to retrieve emails from the shortcuts. For more information about installing the proxy server click [here](#).



- 2) A **HTTPS alias** configured on the **System** page, under **External accessibility settings** section (more information [here](#));
- 3) A **default shortcut**, which will be used by archiving from the mailbox (more information [here](#));
- 4) A **default retention** (more information [here](#));

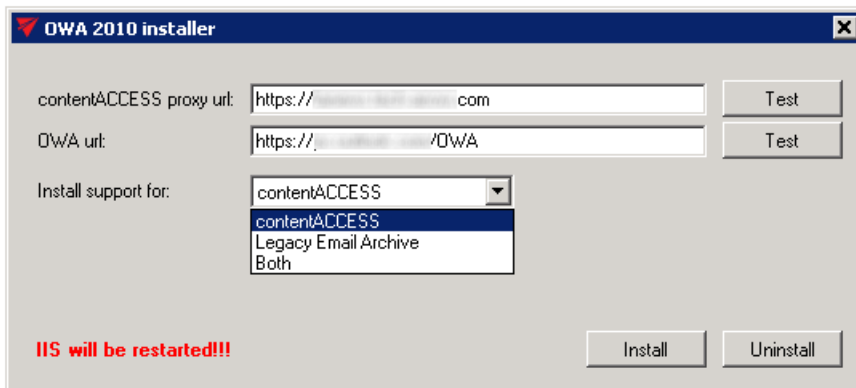
Installing the OWA integration on the CAS 2010 (Client Access Role) server(s).

Go to your CAS server(s). The OWA integration setup can be accessed on the **User experience** page of the Central Administration. Open this page with navigating to **Email Archive** → **Settings** → **User experience** in the contentACCESS Central Administration. If you have Exchange 2010 configured in the Email Archive's **System settings**, the right tab will be automatically preselected on this page, too. Use the link below to download the **contentACCESS OWA Installer** tool and start it on your CAS server(s).



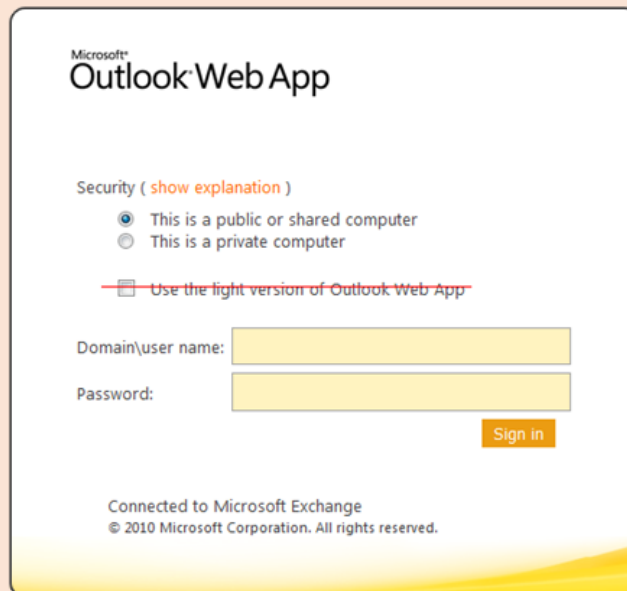
The OWA installer requires to:

- Fill the **OWA URL** (the value is prepopulated in the **OWA 2010 installer** window on the **User experience** page)
- Fill the **contentACCESS Proxy URL** (the value is prepopulated in the **OWA 2010 installer** window on the **User experience** page)
- Choose from the **Install support for** dropdown list where the OWA support should be installed: for contentACCESS, for Legacy Email Archive or for both of them.
- Click the **Install** button.

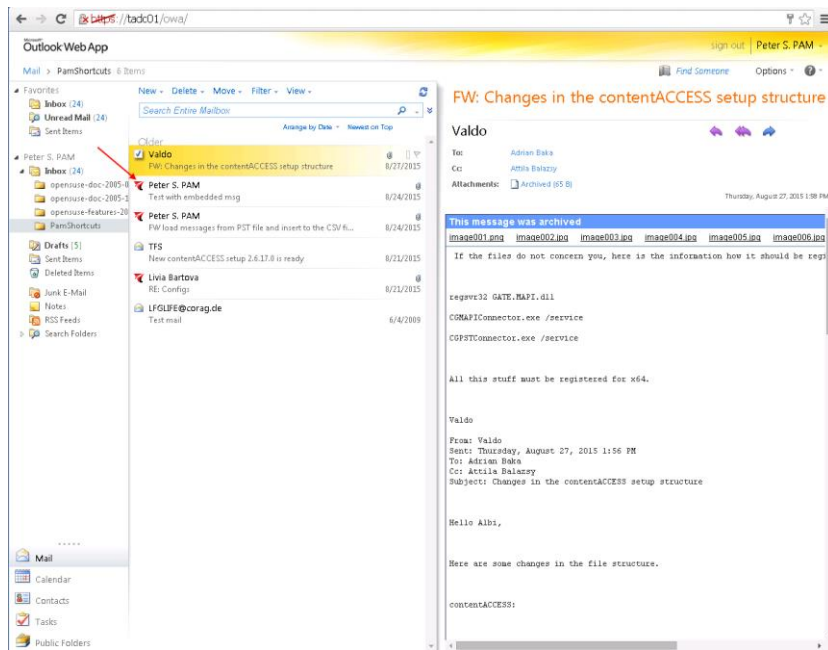


Screenshot: OWA 2010 installer

Important!!! The shortcuts in OWA 2010 do not work with the light version of OWA, so do not select this option by the sign in:

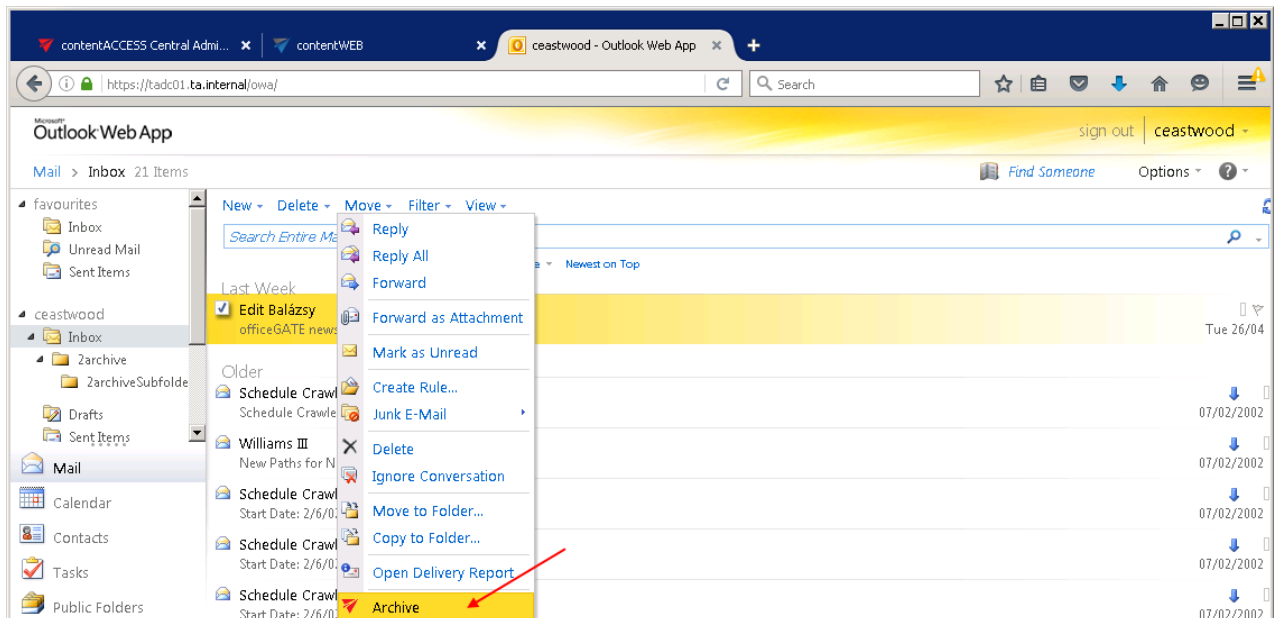


The contentACCESS icons in your mailbox will sign, that the OWA 2010 integration has been successfully installed on your CAS server. With uninstalling OWA 2010 support these icons will be removed automatically. Legacy shortcuts are marked with an icon containing "L" letter, as on the screenshot below.

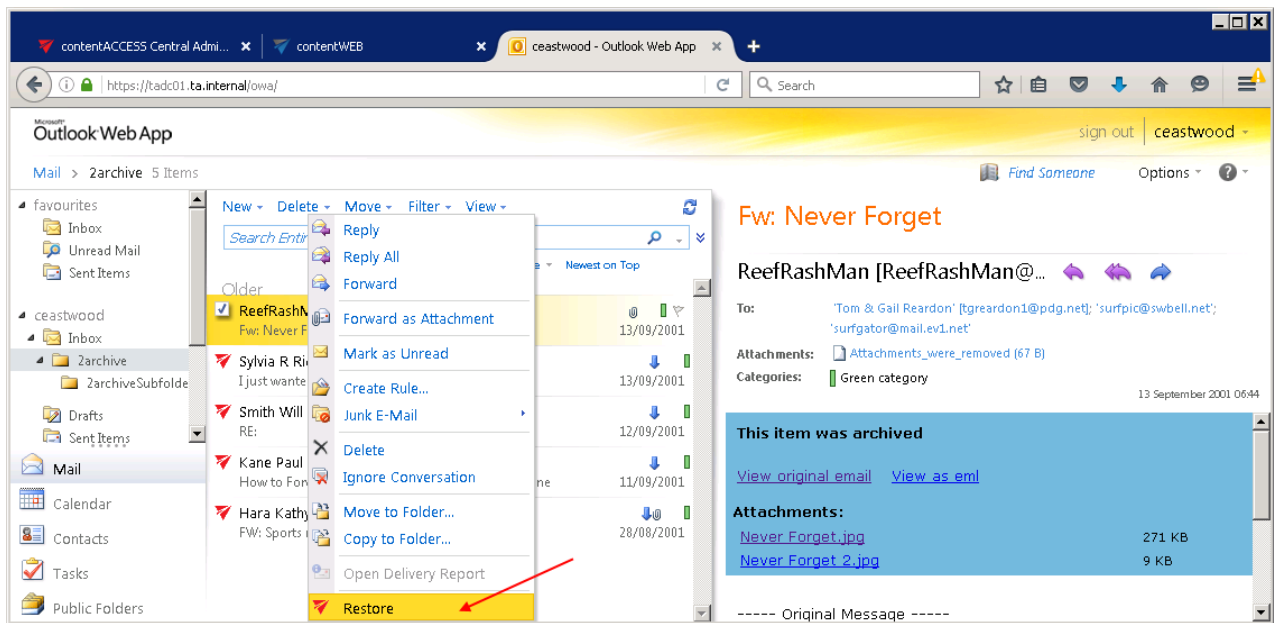


If OWA 2010 is used, the following operations are available in the contentACCESS mailbox items context menu:

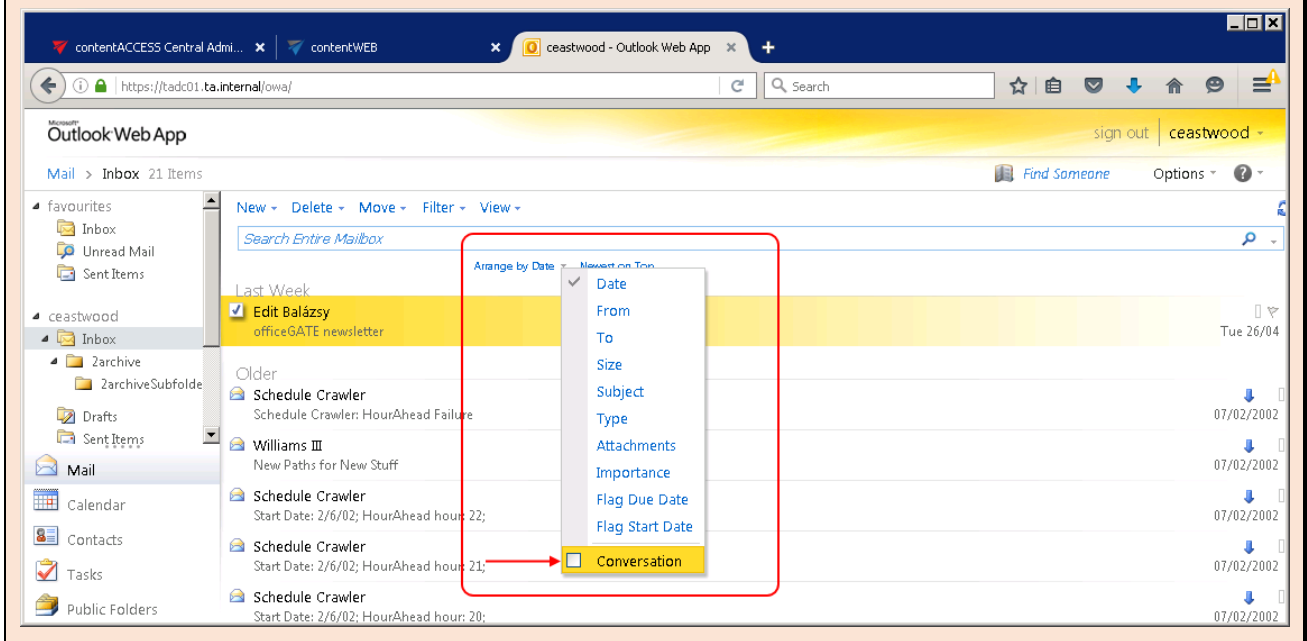
Manual archive: Mailbox items that have not been archived yet can be archived manually; it is possible to archive multiple items at once;



▪ **Manual restore:** Already archived emails can be restored using the email's context menu;



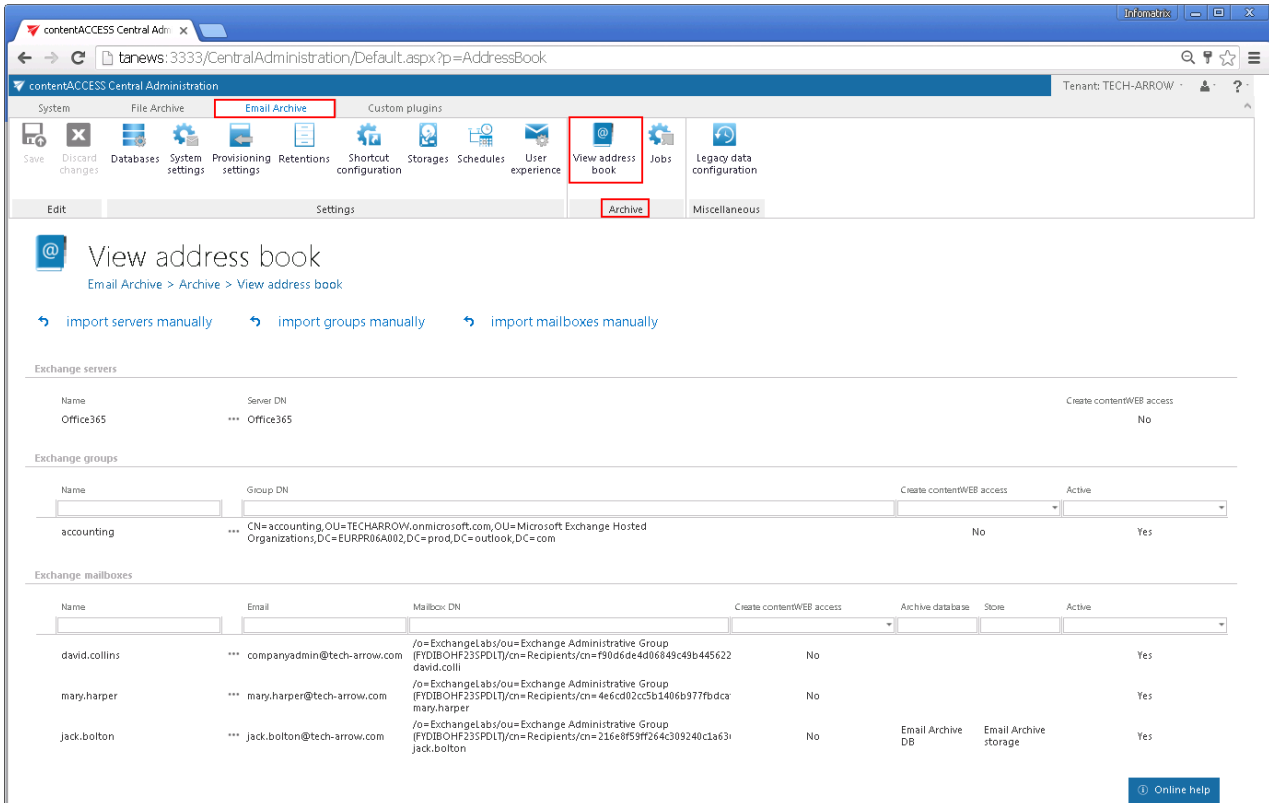
Hint: The conversation mode must be turned off, otherwise the manual archive/manual restore is not available in the context menu.



- In case of **contentACCESS** shortcuts: all operations (forward, reply, manual restore) are available (multiple restore is also supported), except of forwarding AS attachment;
- In case of legacy MAM and legacy ELM shortcuts: forwarding and replying are available, but manual restore and forwarding AS attachments are unavailable.

Address book objects

Navigate to **Email Archive** → **Archive** → **View Address Book** to open the **View address book** page:



The screenshot shows the 'View address book' page in the contentACCESS Central Administration interface. The page is titled 'View address book' and includes a breadcrumb trail: 'Email Archive > Archive > View address book'. There are three manual import options: 'import servers manually', 'import groups manually', and 'import mailboxes manually'. The page is organized into three main sections: 'Exchange servers', 'Exchange groups', and 'Exchange mailboxes'. Each section contains a table of objects with columns for Name, Email, Mailbox DN, Create contentWEB access, Archive database, Store, and Active.

Name	Server DN	Create contentWEB access
Office365	*** Office365	No

Name	Group DN	Create contentWEB access	Active
accounting	*** CN=accounting,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	No	Yes

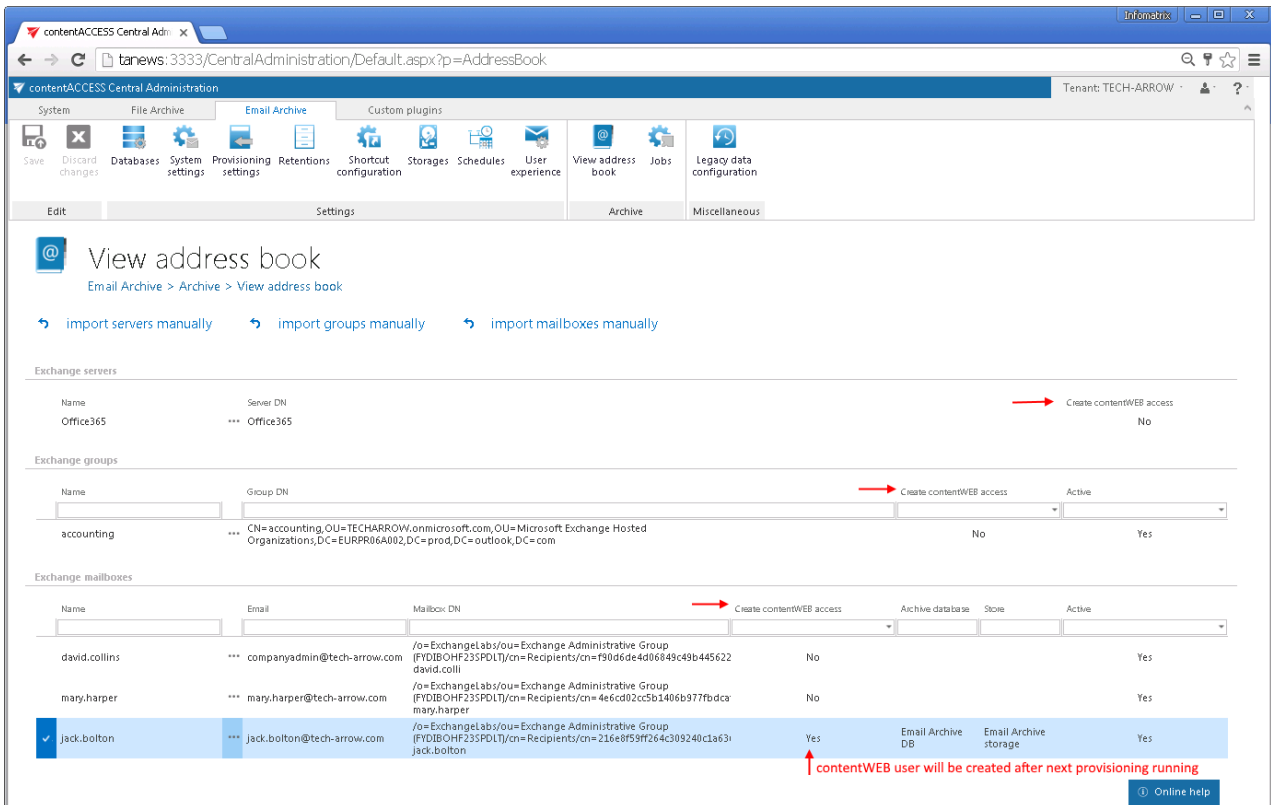
Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store	Active
david.collins	*** companyadmin@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f90d6de406849c49b445622david.collins	No			Yes
mary.harper	*** mary.harper@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e6cd02cc5b1406b977fbdccmary.harper	No			Yes
jack.bolton	*** jack.bolton@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=216e8f59f7264c309240c1a631jack.bolton	No	Email Archive DB	Email Archive storage	Yes

The address book contains a read-only list of objects which are provisioned in the address book. The objects can be added to the address book:

- by the Email Archive provisioning job – read more [here](#)
- manually, using the “import servers manually”/“import groups manually”/“import mailboxes manually” options – these options allow to import the objects from files, read more [here](#).

The address book objects are organized on the page in a hierarchical structure; starting with **Exchange servers** at the top, **Exchange groups** and ending with the **Exchange mailboxes** at the bottom of the page.

The **Create contentWEB access** columns indicate if there is a command for the provisioning job to create a contentWEB user to the selected mailboxes. Once a contentWEB access is granted (provisioning job must be run), every mailbox user will access the archives of the mailboxes, to which he has access on the Exchange server.



Column “Active” shows, if the respective mailbox or group is active in contentACCESS. With this feature it is possible to deactivate no longer used mailboxes, keeping the licenses under control. Deactivated mailboxes/groups are neither touched by the Email archive/Email restore, Email recovery and/or by the Shortcut synchronization jobs, nor they are counted to the licensed mailboxes. To set a group or mailbox to active/inactive, the telemetry job must be run, too. It is running automatically every day or can be started manually on the **Licensing** page (**System** tab → **Services** group → **Licensing**, option “update telemetry”). Please note that you can’t have more activate mailboxes than the license allows. If you have already reached the limit, some mailboxes will be automatically deactivated.



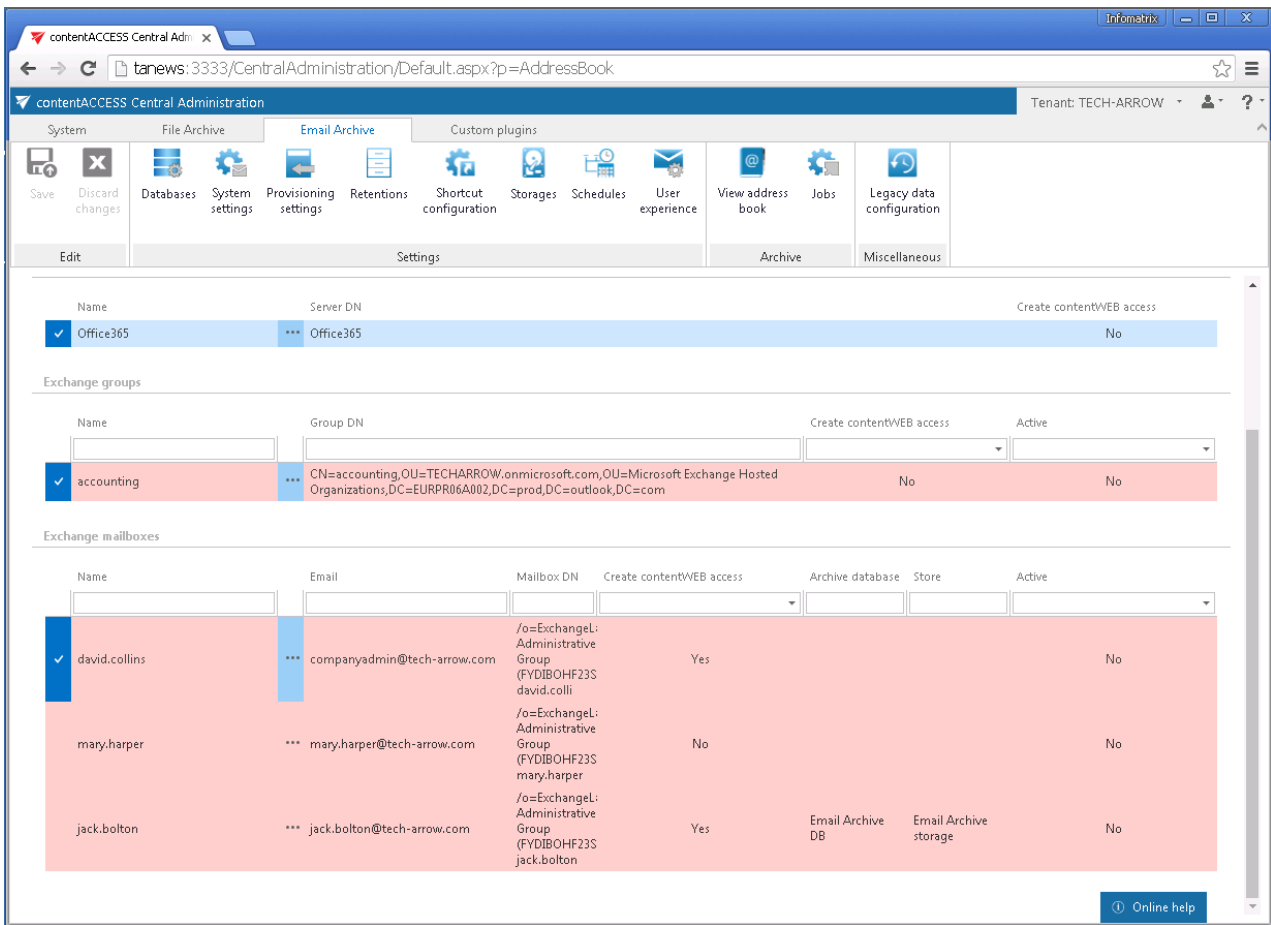
The screenshot shows the 'View address book' page in the contentACCESS Central Administration interface. The page is divided into three main sections: Exchange servers, Exchange groups, and Exchange mailboxes. Each section contains a table of configuration items. In the 'Exchange groups' section, a red arrow points to the 'Active' dropdown menu, which is currently set to 'Yes'.

Name	Server DN	Create contentWEB access
Office365	*** Office365	No

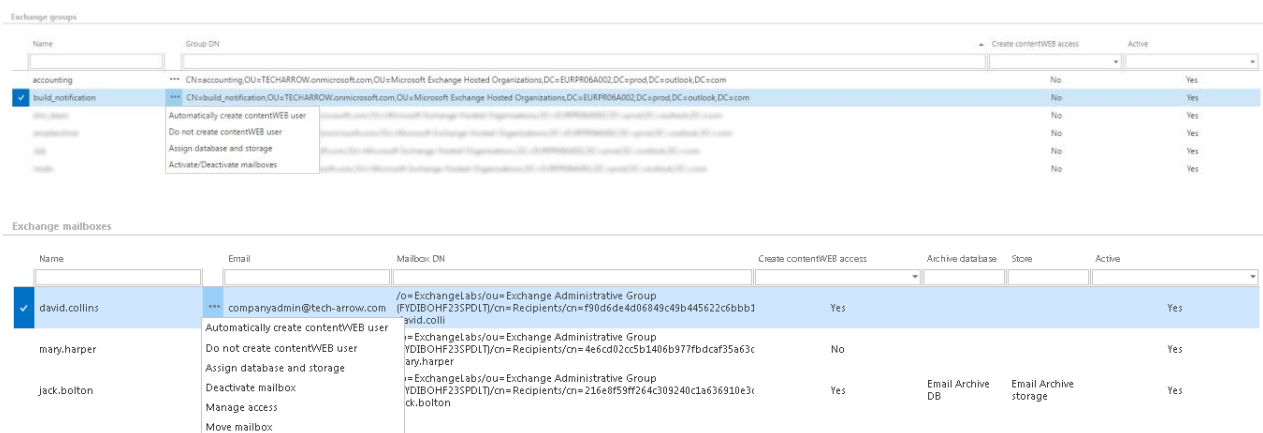
Name	Group DN	Create contentWEB access	Active
accounting	*** CN=accounting,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	No	Yes

Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store	Active
david.collins	*** companyadmin@tech-arrow.com	/o=Exchange1abs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f9086de4d9649c49b445622david.collins	No			Yes
mary.harper	*** mary.harper@tech-arrow.com	/o=Exchange1abs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e6cd02cc5b1406b977fdbcmary.harper	No			Yes
✓ jack.bolton	*** Jack.bolton@tech-arrow.com	/o=Exchange1abs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=226e8f59f264c309240c1a631jack.bolton	Yes	Email Archive DB	Email Archive storage	Yes

Inactive address book objects are marked with red color:



User access to the contentWEB, mailbox activation/deactivation, assign database/storage (read more [here](#)), mailbox access (read more [here](#)) and mailbox move (read more [here](#)) options are configurable using the server's/group's/mailbox's context menu. (menu items **Automatically create contentWEB user, Assign database and storage, Activate/Deactivate mailboxes, Manage access, Move mailbox**).



The **search textboxes** (Screenshot A) and **page listing** (Screenshot B) options at the top and bottom of each section ensure an easier handling with the address book objects:



Name	Group DN	create contentWEB access
tech		
<input checked="" type="checkbox"/> techarrow_all	CN=techarrow_all,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
<input type="checkbox"/> techarrow_sales	CN=techarrow_sales,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No

Screenshot A: Search function

Name	Group DN	create contentWEB access
techarrow_all	CN=techarrow_all,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
techarrow_sales	CN=techarrow_sales,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
Test01	CN=Test01,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
build_notification	CN=build_notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
em_team	CN=em_team,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
emilarchive	CN=emilarchive,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
Administrators_notification	CN=Administrators_notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
TenantAdmins_2092c	CN=TenantAdmins_2092c,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
HelpdeskAdmins_3ff69	CN=HelpdeskAdmins_3ff69,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No
RM	CN=RM-MailboxAdmins8755acc0646e146088a3ca7f95952d4f6,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR86A802,DC=prod,DC=outlook,DC=com	No

Page 1 of 3 (25 items) 1 2 3

Screenshot B: Page listing

Granting access rights for mailbox users and explicit users to view the mailbox archive

The archived emails can be viewed by an end user in contentWEB, which is the user interface for contentACCESS archive.

There are 2 ways how a contentWEB access can be created. The administrator can 1) Create a **contentWEB user for one mailbox user or for multiple mailbox users** of the selected Exchange server/group, or 2) He can **give explicit rights to any contentACCESS user to access any archive mailbox(es)** associated with one main mailbox user on the Exchange server. The following chapters of the guide will show for the reader how to manage access to contentWEB using these options.

Creating contentWEB users (option 1):

The **Create contentWEB user** method should be used, if the administrator would like to grant access rights for **multiple mailbox users** to access their own associated mailbox archives. contentWEB users (with permissions to access the associated email archives over contentWEB) can be created on 3 levels. It is possible to:

- create contentWEB users to all mailbox users of the Exchange server with selecting **Automatically create contentWEB user** option from the server's context menu;

Name	Server DN	create contentWEB access
<input checked="" type="checkbox"/> Office365	CN=Office365	No

Automatically create contentWEB user

Do not create contentWEB user



- create contentWEB users to mailbox users of the selected Exchange group with selecting **Automatically create contentWEB user** option from the group's context menu;

Exchange groups

Name	Group DN	Create contentWEB access	Active
accounting	CN=accounting,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No	Yes

Automatically create contentWEB user

Do not create contentWEB user

Assign database and storage

Activate/Deactivate mailboxes

- create one contentWEB user to one selected mailbox with selecting **Automatically create contentWEB user** option from the context menu of the selected mailbox;

Exchange mailboxes

Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store	Active
david.collins	*** companyadmin@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=450d6de4d06649c49b445622c6bb1david.collins	Yes			Yes
mary.harper	*** mary.harper	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e6cd02cc5b1406b977fbdcaf35a63cmary.harper	No			Yes
jack.bolton	*** ck.bolton	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=216e8f59f264c309240c1a636910e3cck.bolton	Yes	Email Archive DB	Email Archive storage	Yes

Automatically create contentWEB user

Do not create contentWEB user

Assign database and storage

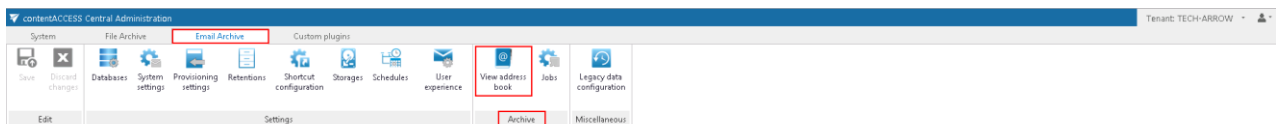
Deactivate mailbox

Manage access

Move mailbox

Now we will grant contentWEB access to associated mailbox archives for all mailbox users on the Office 365 server.

1. We open the server's context menu with a click on the ellipses, and choose **Automatically create contentWEB user** from the list. There will appear a "YES" command in the "Create contentWEB access" column, which will mean, that it was required to create contentWEB user to all mailboxes of the server.



View address book
 Email Archive > Archive > View address book
 Shows a read-only view of the objects (Servers, Groups, Mailboxes) currently in the address book, which were provisioned by the provisioning job.

Exchange servers

Name	Server DN	Create contentWEB access
Office365	CN=Office365	Yes

Automatically create contentWEB user

Do not create contentWEB user

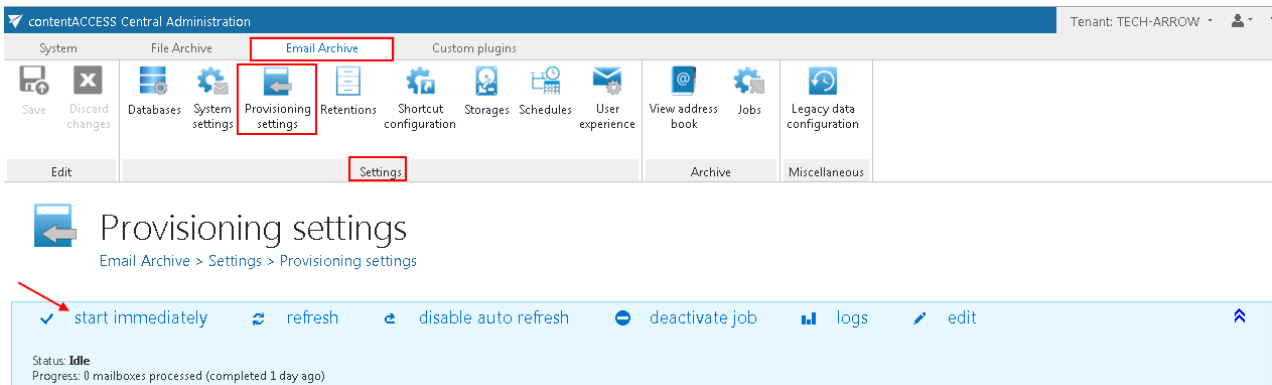
Name	Group DN	Create contentWEB access
techarrow_all	CN=techarrow_all,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
techarrow_sales	CN=techarrow_sales,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
Text11	CN=Text11,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
build_notification	CN=build_notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
elm_team	CN=elm_team,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
emalarchive	CN=emalarchive,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
Administrators notification	CN=Administrators notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
TenantAdmins_2892c	CN=TenantAdmins_2892c,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
HelpdeskAdmins_3ff6d	CN=HelpdeskAdmins_3ff6d,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No
RBM-MailboxAdmins875acd646e1408ba	CN=RBM-MailboxAdmins875acd646e1408ba,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=eurpr86a802,DC=prod,DC=outlook,DC=com	No

Exchange mailboxes

Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store
edit.balazy	*** edit.balazy@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=997238dc87ac4ec9218ce240782952-edit.balazy	Yes	Email Archive DB	Email Archive store
adam.horvath	*** adam.horvath@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=da941680f5a8462a6cc31b24014f67e-adam.horvath	No		
Admin@tech-arrow.emea.micrsoftonline.com	*** admin@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c6af4e8c5a0334c1aa27a89294629d9-Admin@tech-arrow.emea.micrsoftonline.com	No		
adrian.baka	*** adrian.baka@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c3a79ec55c542f4d00740edaa8073-adrian.baka	No		



- We navigate to Email Archive tab → Settings → Provisioning settings on the ribbon, and **start the provisioning job** from the status bar (or wait until it begins to run according to the provisioning scheduler).



Provisioning job points out, which mailbox user to which mailbox(es) is associated on the Exchange server, and synchronizes these permissions with contentACCESS. The rights on the Exchange server will be synchronized with contentACCESS, and new contentWEB users will be created to each mailbox users on the server. Each contentWEB user will have an Automatical flag. In case of O365 an Azure user login will be created, in case of on-premise Exchange server a Windows user login will be created to each mailbox users on the server. With these user logins contentWEB email archive will be accessible for these mailbox users (with a single click on the Azure/Windows button in the TECH-ARROW central login window).



contentACCESS Central Administration

System | File Archive | Email Archive | Custom plugins

Save | Discard changes | Connection | User interface | Users | System administrators | System | Licensing | Notifications | Monitoring | Cluster | Tenants | All databases | contentWEB | officeGATE | accessGATE mobile | Virtual drive configuration

Edit | Application Settings | Security | Services | Tenants | Client Applications

User details

System > Security > Users > User details

User details

Display name: Edit Balázsy
Is system admin: No

Security information

contentWEB user with Automatical flag (created by provisioning job)

User name	Role name	Flags	Description
Edit Balázsy	Standard user	Automatic (100)	Edit Balázsy has Standard user rights on Email archive model (#703cab25-a5a7-4c66-a1f9-25d3f6b27916)

User logins

+ new

Azure User login created to the contentWEB user

Login Type	Login Name	External Id
Azure	edit.balazsy@tech-arrow.com	S-1-5-21-1208810553-3938797923-1081931466-5584216

[Go back](#)

What happens, if you select **Do not create contentWEB user** from the context menu? If formerly it was set to **Automatically create contentWEB user**, and the administrator changes these settings to **Do not create contentWEB user**, then the already existing contentWEB user will NOT be deleted. However, if new mailbox users will be added on the Exchange server, then they will not get contentWEB access rights on the mailbox archive.

How to find Exchange groups/Exchange mailboxes with or without contentWEB users? In the Exchange groups/Exchange mailboxes section unroll the Create contentWEB user dropdown list, which is located at the right side of the address book's page, and select "Checked" to filter out all groups/mailboxes, for which contentWEB users will be/were created. If you would like to find all groups/mailboxes without contentWEB users, select "Unchecked" from the list.

Exchange groups

Name	Group DN	Create contentWEB access
techarrow_all	CN=techarrow_all,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	<input checked="" type="checkbox"/>
techarrow_sales	CN=techarrow_sales,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	<input checked="" type="checkbox"/>
Tez01	CN=Tez01,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	<input checked="" type="checkbox"/>
build_notification	CN=build_notification,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	<input checked="" type="checkbox"/>
elm_team	CN=elm_team,OU=TECHARROW.onmicrosoft.com,OU=Microsoft Exchange Hosted Organizations,DC=EURPR06A002,DC=prod,DC=outlook,DC=com	<input type="checkbox"/>

Manage access to a mailbox archive (option 2)

It can happen, that the administrator is asked to grant access permissions to the mailbox archive for a second (explicit) user. An explicit user can be anybody – a user who has never used contentACCESS before and now he has to view the archived emails, a colleague who stood in for somebody else during vacation time and needs to access the archive, somebody from the company who got a claim regarding an older stuff and needs to access the already archived email attachments, invoices etc. In such cases, this (second) user must get rights to the mailbox archive(s) associated with the main mailbox user.

In this use case we will show you how to grant explicit rights to the archive mailboxes associated with mailbox “edit.balazsy@tech-arrow.com” for a new user. To achieve this, the administrator should follow the next steps:

Navigate to the Email Archive tab → Archive → View Address book control on the ribbon. Under **Exchange mailboxes** section choose the desired mailbox, click “...” (ellipsis mark), select **Manage access** option in the context menu.

Exchange mailboxes

Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store
edit.balazsy	edit.balazsy@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=987238dc87ac4ec89210ce240732f552-edit.balazsy	Yes	Email Archive DB	Email Archive store
	Automatically create contentWEB user		No		
	Do not create contentWEB user		No		
	Assign database and storage		No		
	Deactivate mailbox		No		
	Manage access		No		
	Move mailbox		No		

On the **Manage access** page click on **+ new**. The **Create new role association** dialog will open. Select here the “Standard user” role, the “Create new user” invitation type, type in a user name and select “Forms” from the **Login type** dropdown list. Type any optional user credentials into the appropriate textboxes and click on **OK**.

Create new role association

Tenant information

Role:

Invitation type:

Create new user

Display name:

User login

Login type:

Login name:

Login password:

Confirm password:

As this user was created manually, he got a **Manual flag**, which can be viewed on his **User details** page. It is also possible edit the user's login data, or to delete the user login. If the administrator deletes the user login, the user won't be able to log in to contentWEB with this user login any more. These actions are accessible from the context menu of the provider, under **User logins** section.

User details

System > Security > Users > User details

User details

Display name: ECSO's archive user

Is system admin: No

Security information

User name	Role name	Flags	Description
ECSO's archive user	Standard user	Manual	ECSO's archive user has Standard user rights on Email archive model (#783cab25-a5a7-4c66-a1f9-25d3f6b27916)

User logins

+ new

Login Type	Login Name	External Id
Forms	Walter	Walter

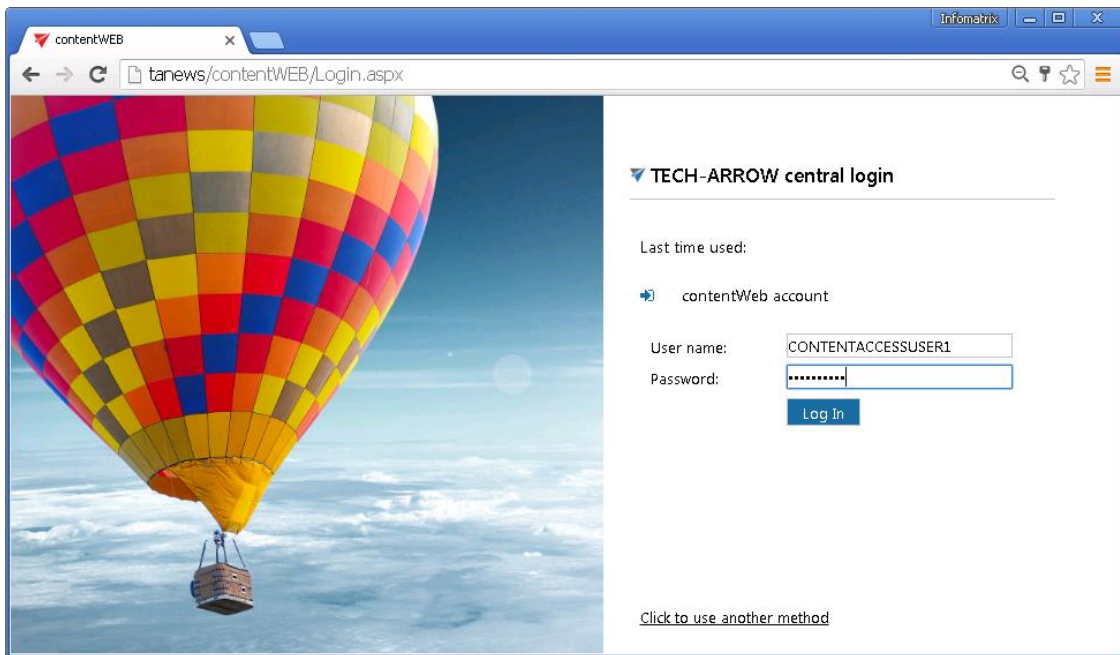
Delete

Change password

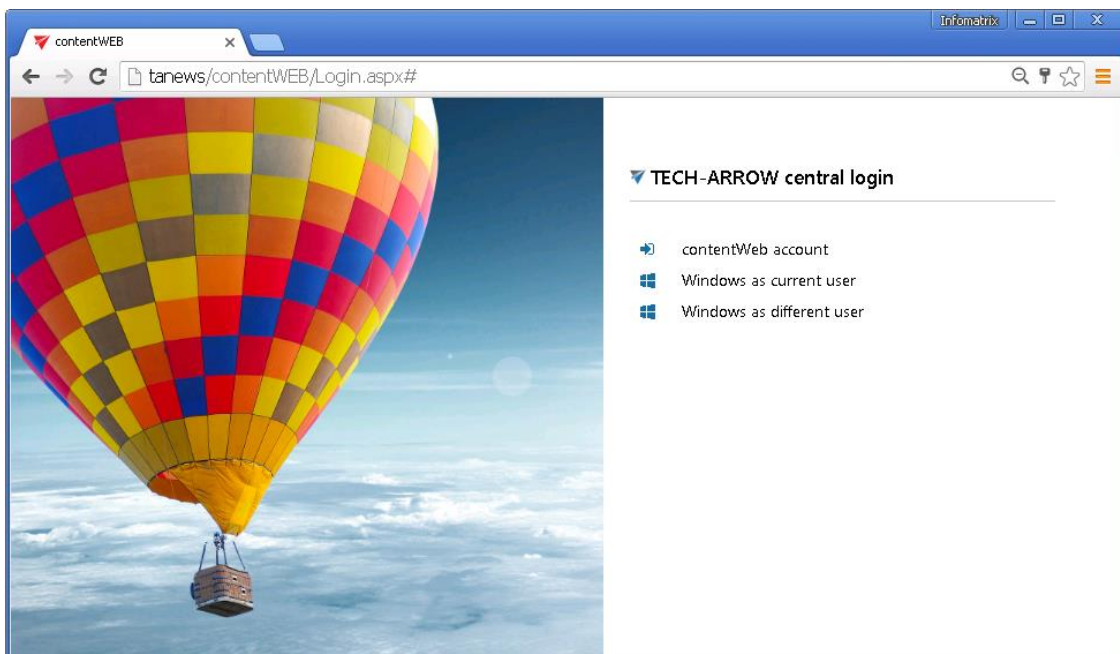
How the end user logs in to contentWEB (archive)

To view the associated archive mailboxes and folders, the end user should open the browser and type the contentWEB URL (obtained from the system administrator) into the browser's field: [http://\[ServerName\]/contentWEB/Login.aspx](http://[ServerName]/contentWEB/Login.aspx).

With the internal or external account he will be able to log in to contentWEB user interface, and view here the archived items on which he has access permissions.



To log in with an external account click on “Click to use another method” and log in:



Database and store assignment in email archiving

What is the meaning of “mailbox assigned to a database and storage”? When the provisioning job synchronizes contentACCESS with the Exchange server, it adds the mailboxes to the contentACCESS's address book. In this moment these mailboxes are unassigned, i.e. they do not

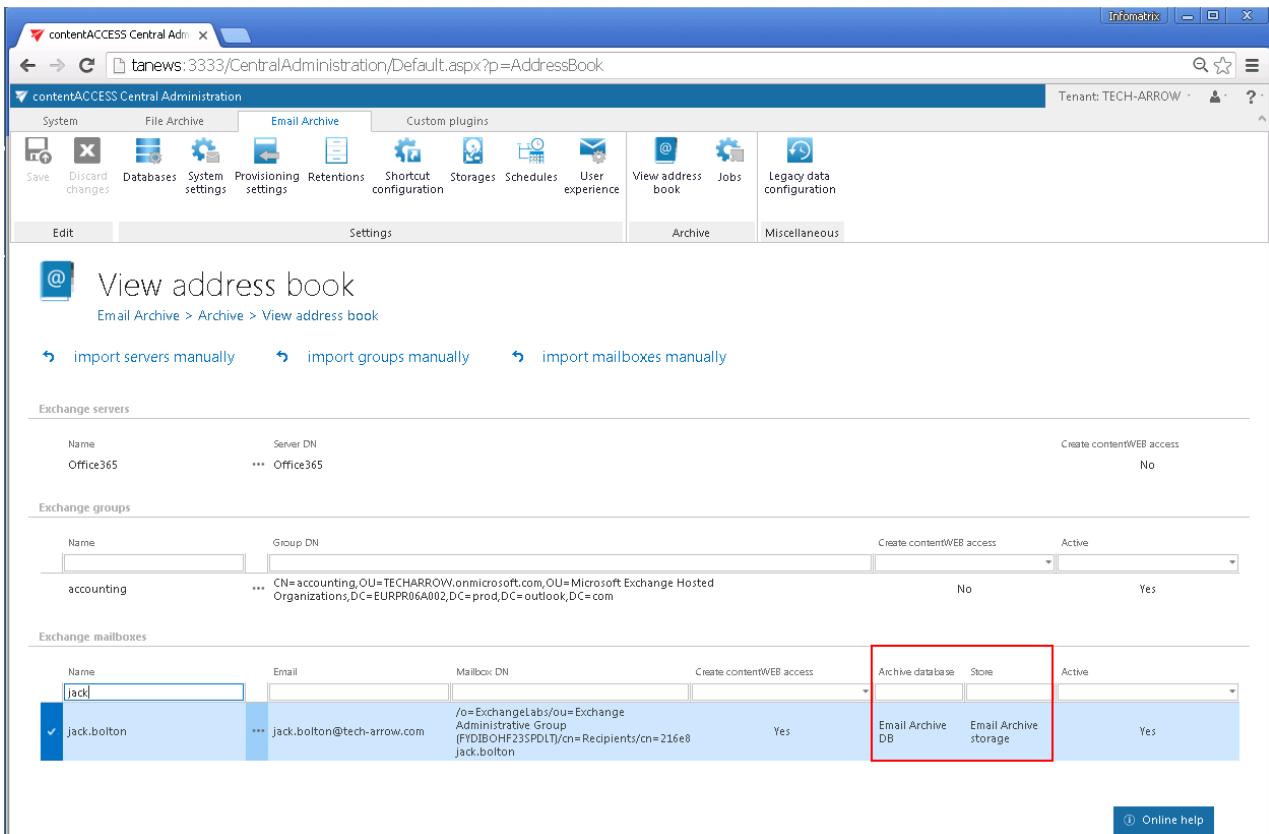


belong to any archive – they are not archived yet. If the database and storage fields are empty, this indicates, that these mailboxes have never been archived by contentACCESS. Before the email archiving process is started, a database and storage should be assigned to the mailbox. There are multiple possibilities how to assign a mailbox:

- Go to the jobs and start the jobs (it will assign the mailboxes associated with the job to the store and database which is configured in this job);
- Navigate to Email Archive → Archive → View address book, and manually assign the mailboxes to databases/storages.

When something is archived from the mailbox for the very first time, the first job automatically assigns the mailbox to the database and to the storage which is configured in this job. From this point onward the mailbox will belong to the database/storage and anything newly archived will go to the same database/storage. It does not matter if the job settings are changed later on: the mailbox is already assigned and will always go to the assigned database/storage, no matter how the job is configured. This might be confusing for the administrator, but contentACCESS is preventing here a disaster: the mailbox should not have half the data in different database/storage. This also means, that it is possible now to safely move the mailboxes between the groups without a possibility, that the same mailbox will be archived into two different databases/storages. You can associate database and storage for Exchange groups (or for a single mailbox as well).

The administrator can review which mailbox is in which database/storage in the address book. This information can be found at the right side of the particular mailbox row.



The screenshot shows the 'View address book' page in the contentACCESS Central Administration interface. The page is divided into three main sections: Exchange servers, Exchange groups, and Exchange mailboxes. The 'Exchange mailboxes' section contains a table with the following data:

Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store	Active
jack						
jack.bolton	jack.bolton@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=216e8 jack.bolton	Yes	Email Archive DB	Email Archive storage	Yes

It is also possible to change this assignment as it is described below, but it is not recommended! The reasons why the reassignment of mailboxes is still allowed are the following:

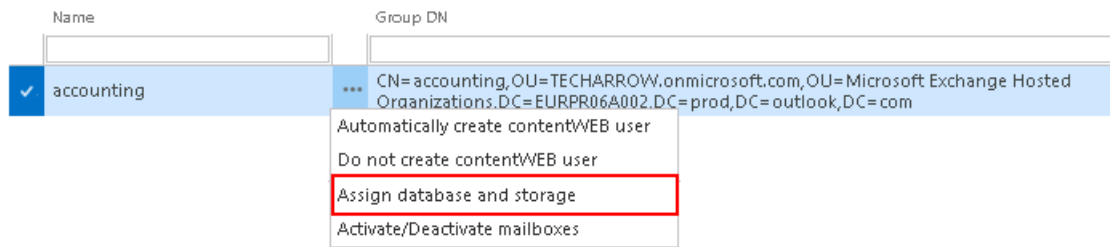
- ✓ It makes possible to manually set the unassigned mailboxes, if an archiving job is not currently running.
- ✓ It is a must-have tool if you would like to select one (or just a few) mailbox(es) from a group, which will be associated to another database. In this case (before starting the archiving process) you can assign one database to the whole Exchange group, and select a mailbox (or a few mailboxes) from this group and assign it to another database manually.

How to assign database and storage to an Exchange group?

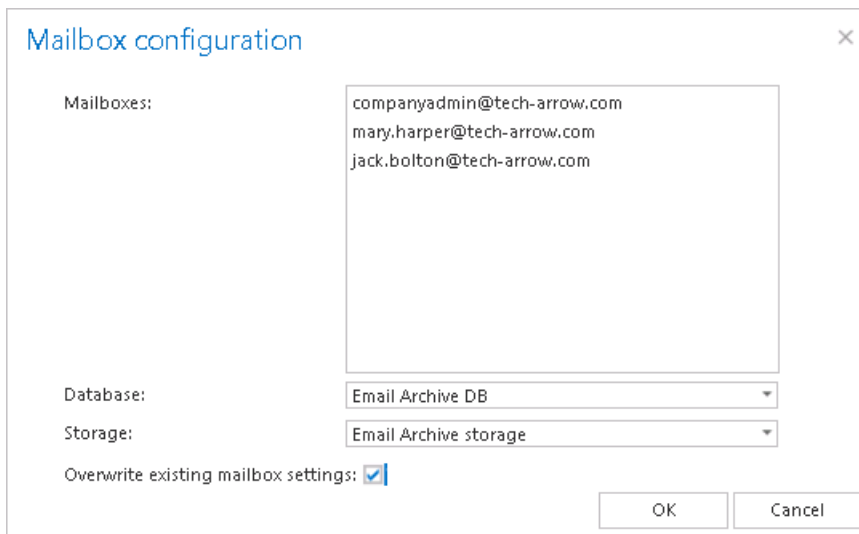
Navigate to **Email Archive** → **Archive** → **View address book**, select a group, click on ... (ellipses) and click **Assign database and storage** (Screenshot A) in the context menu. Fill the database and storage into the **Mailbox configuration** repository window (Screenshot B).



Exchange groups



Screenshot A

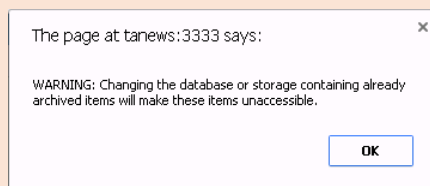


Screenshot B

Next to **Mailboxes** can be seen all mailboxes falling under this certain Exchange group.

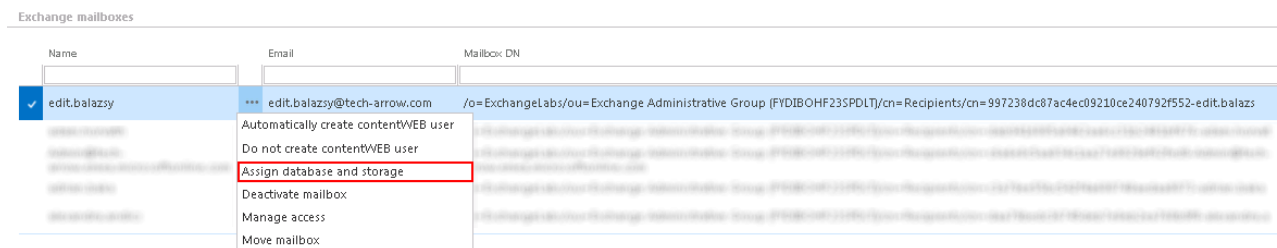
Database, Storage: Assign a database and storage to the mailboxes of the Exchange group.

Overwrite existing settings: It is very important to keep in mind, that with checking this checkbox the mailboxes (who already have their own database and storage settings) will not have an access to the items that were previously archived into another database and storage. A contentACCESS pop-up window (like the one below) will warn the administrator about this fact. If you leave the “Overwrite existing mailbox settings” checkbox unchecked, then the newly assigned database and storage will be assigned only to those mailboxes, which are not associated with any DB and storage.



Note: If the mailbox database and storage has not been selected manually in the View address book, then by the next running of an email archive job the database and storage will be automatically assigned to the mailbox according to the settings of this job.

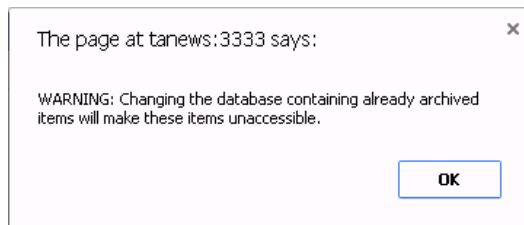
How to assign database and storage to a mailbox? It is also enabled to assign a database and storage to a single mailbox. Select a mailbox under the **Exchange mailboxes**, click on ... and select **Assign database and storage** option from the list.



Fill out the **Mailbox configuration** window (Screenshot A). If you want to edit these settings in the future, a pop-up window will warn you that changing the database containing already archived items the user will not have access to these archived items (Screenshot B).



Screenshot A



Screenshot B

The information about the assigned database and storage will be allocated on the right side of the address book window, in the last columns:



Name	Email	Mailbox DN	Create contentWEB access	Archive database	Store
edit.balazsy	*** edit.balazsy@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=997238dc87ac4c99218cc240792552-edit.balazsy	Yes	Email archive DB	Email archive store

How to move data from source database/storage into a second (target) database/storage?

The mailbox mover feature allows to move one or more mailboxes into different database and different storage. This is possible with creating a new job directly from the address book. On the **View address book** page (Email Archive → Archive → View address book) click on the ellipses (...) of the particular mailbox of which archive data need to be moved, and select **Move mailbox** from the context menu.

Name	Email	Mailbox DN
edit.balazsy	*** edit.balazsy@tech-arrow.com	/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Re

- Automatically create contentWEB user
- Do not create contentWEB user
- Assign database and storage
- Deactivate mailbox
- Manage access
- Move mailbox

For more information how to set a mailbox move job refer to section **Mailbox move** in section [“Creating Email archive jobs: archive, restore, recovery, mailbox move”](#).

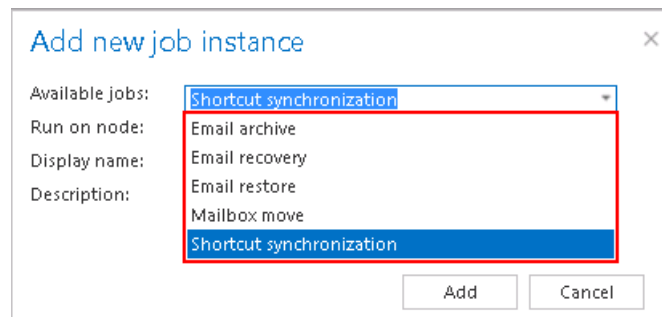
Creating Email archive jobs: archive, restore, recovery, mailbox move, shortcut synchronization

As previously mentioned, automated archiving is managed by automated jobs that are configured on the job’s configuration page. Here you can define the exact configurations (i.e. database, schedulers, storage, address book objects to process etc.) to an archive/restore/recovery/mailbox move/shortcut synchronization job.

Creating jobs from email archive plugins: Navigate to **Email archive → Archive** on the ribbon, and click on the **Jobs** button. The **Jobs** page of Email Archive will open. Click here on **+ new** option. In the



Add new job instance dialog choose one from the list of available jobs (Email archive/Email restore/Email recovery/Mailbox move/Shortcut synchronization), select the node where the job will run (option **Run on node**) and fill a **Display name** into the **Add new job instance** popup-window. Then click on **Add**.



If you want to configure the job immediately, then click **OK** in the pop-up window and the job configuration page opens immediately. The configuration page is accessible any time using the “Configure” menu item in the given job’s context menu (2nd picture below).

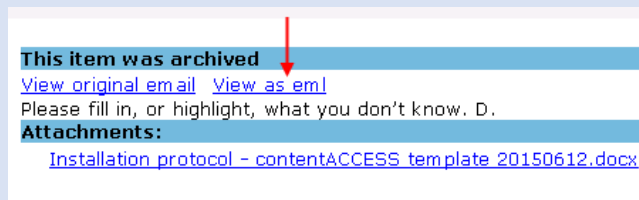
ID	Display Name	Type	Status
91	JohnBrown_archive job	Email archive	Idle
114	Restore job		Idle
115	Recovery job for Test folder		Idle
127	Mailbox move for edit.balazsy@tech-arrow.com		Idle
135	Email archive job for EBA		Idle

The following subchapters will describe the functionality and configuration of each available email archive job (archive, restore, recovery, mailbox move and shortcut synchronizer jobs) in more details.

Email archive job

This job type archives the configured mailbox items into the selected archive storage. The items which are archived with shortcuts or with the “Keep original” method will be accessible both from the mailbox folder and from the archive; items archived with the journal shortcut will be accessible in the archive only. Automated email archive jobs are usually running out of working hours.

Note: The HTML shortcut which replaces the archived email also contains a link in .eml format, which is compatible with MAC OS, too.



Email archive job configuration

In this use case we will configure an email archive job, which will archive the mailbox items of mailbox “edit.balazsy@tech-arrow.com” that are older than 1 year but younger than 2 years. The archived items will be replaced with HTML shortcuts. The archive process will run each working day from 5 PM CET till midnight. By this processing type it is a must to configure the following sections on the job’s configuration page:

✓ Processing settings:

The administrator may select here, if he would like to use MAPI protocol to communicate with the Exchange server. EWS (Exchange Web Services) connection is selected by default, if MAPI is not selected here. It is important to know, that O365 Exchange server does not support MAPI connection. Another requirement to use MAPI is to have Exchange server 2013 or earlier version. Since some other functions might still use EWS, the EWS connection must be configured in any cases. With checking **Split attachments** option the attachment will be stored separately from the email body. By default this (recommended) option is always turned on.

On this use case we will use EWS and we will split the attachments, too.



Processing settings

- Use MAPI to communicate with Exchange Server (Supported only for versions up to Exchange 2013)
- Split attachments

✓ Database settings:

For database settings select an already configured connection from the dropdown list, where the metadata will be stored. We have configured for our archived emails database “Email Archive DB”, so we set it here. (For further information how to set database connections please refer to section [Databases.](#))

Database settings

Database connection:

✓ Scheduling settings:

In this step the running time(s) of the Email archive job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via **create new** ... option from the dropdown list. For an email archive job it is recommended to set a Week schedule with repeat, which will start the job running at the same time on every day. In our use case we set a scheduler which starts the archive job each day after the business hours (starts at 5 PM CET and ends at midnight). (For more information about how to set schedulers refer to the section [Schedules](#) above.)

Scheduling settings

Scheduled in:

✓ Storage settings:

For storage settings choose an already configured storage from the dropdown list. The processed binaries will be stored here. On the screenshot below we selected our already configured disk type store: “Email Archive store”. (For more information how to set storages check section [Storage](#) above.)

Storage settings

Storage name:



✓ **Shortcut settings.** In the mailbox the archived emails will be replaced with the shortcuts that is set here. You will be able to select from the shortcuts that you have previously configured in section **Shortcut configuration** above. If the mailbox items have not been archived yet (are archived for the 1st time), check the “Apply to NOT ARCHIVED items” checkbox. It is recommended to use HTML shortcut for emails/attachments that are 1 to 2 years old, so we select the “HTML_emails in age 1-2 years” shortcut here.

Shortcutting

Shortcut types:

Apply to NOT ARCHIVED items

Use shortcut **HTML_emails in age 1-2years** for items where sent date is **from the interval 1 - 2 years** [Change] and size is **anything** [Change]

Apply to Archived items

Use shortcut **HTML_emails in age 1-2years** Keep original shortcutting method

Use shortcut **Keep original** for items where sent date is **anything** [Change] and size is **anything** [Change]

Normal

Note: If the items are already archived (e.g. with the “Keep original” method), but they need to be replaced with shortcuts, check the second checkbox and specify a shortcut that should be used. It should be mentioned, that these 2 processes will always run in 2 stages (even if both processes are configured within one job). By the 1st job running the items will be archived, by the 2nd job running the (archived) items will be replaced with the selected shortcuts.

You can also set the age and size of the emails to be archived. For Age filter and Size filter settings click on the corresponding “Change” button and set the age of the emails that should be archived and the size of the items to be archived. The maximum size that can be set is 1024, and the available size units are: KB, MB, GB, TB. It is important to keep in mind that the sent date of the emails is the determinative date in case of the age filtering.

In this use case we will process all emails regardless of the file size, so we set the value to “0”.

Age Filter

Select filtration type:

- Sent date is younger than
- Sent date is older than
- Sent date is in interval

Use Dates

From: [] To: []

From: 2 To: 1

Days Months Years

Clear OK Cancel

Size Filter

Select filtration type:

- Bigger than
- Smaller than
- Between values

Bigger

0.000 KB

Clear OK Cancel

Note: Shortcutting methods can be also combined when configuring an Email Archive job. For more information refer to section “**Combining the shortcutting methods**”.


✓ Retention settings:

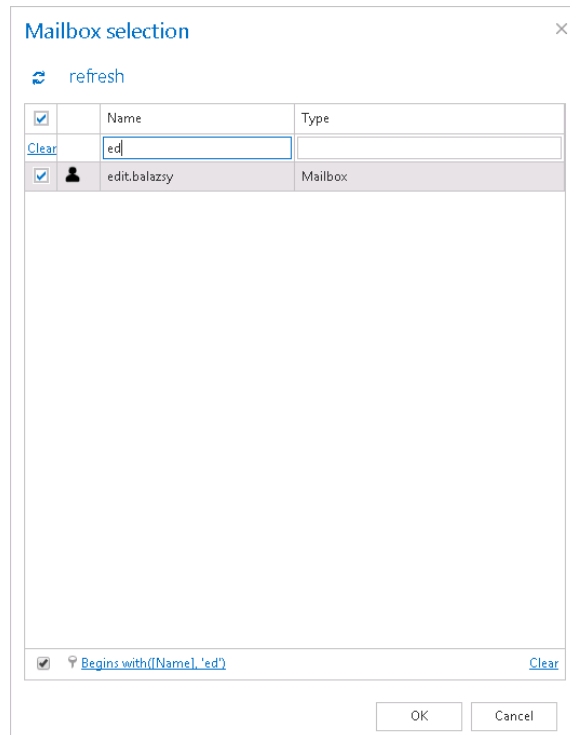
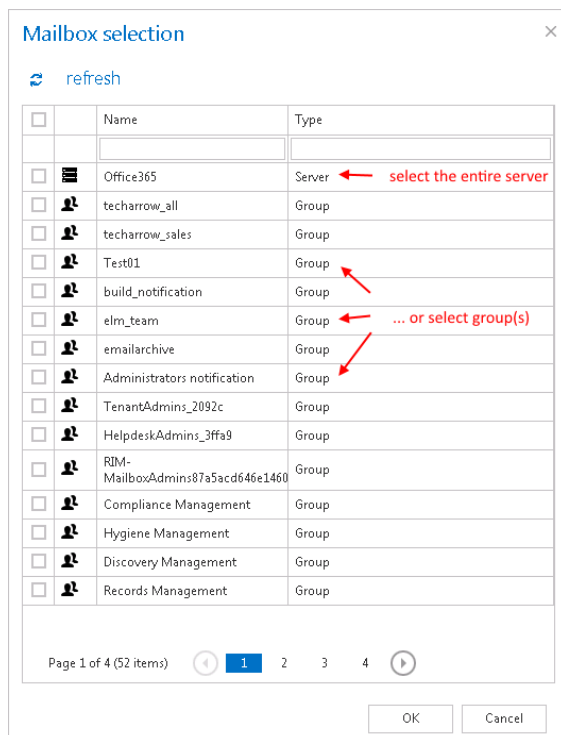
Under Retention settings choose an already configured retention time from the dropdown list. The archived emails will be stored during this time in the storage, and it will be impossible to delete them from there. It is highly recommended to select a retention time which is required by the law of your country. (For more information how to set retentions check section [Retentions](#) above.)

Retention settings

Retention:

✓ Address book objects to process

Here the administrator may select the mailboxes, groups or the entire Exchange server which will be processed by the archive job. Click on the  **select** option and check the desired groups or servers in the **Mailbox selection** window, then click on **OK**. In this use case we will archive mailbox “edit.balazsy@tech-arrow.com”, so we select it from the list:



✓ Include folders:



Email archive job is crawling the entire mailbox or recursive folder structures from the mailbox for further processing. Before you enter the folder name(s) to be crawled, it is necessary to select the folder filtering type.

Include folders

Folder filtering type:

- Entire mailbox
- One single folder**
- Recursive, starting from a single folder
- Multiple folders
- Multiple recursive, starting from a single folder

If you set **Entire mailbox**, then the whole mailbox including all folders will be processed. If you set **One single folder** type, then only one pre-selected folder will be processed (e.g. if you set %INBOX%\Subfolder1, then only Subfolder1 will be processed). If you set **Recursive, starting from a single folder** filtering type, then all folders starting from the defined folder will be processed (e.g. if you set %INBOX%\Subfolder1, then starting from Subfolder1 every subfolder will be processed in the structure). The same rule applies to the **Multiple folders**, and to the **Multiple recursive, starting from a single folder**, too, but in this case we can work with more folders simultaneously (e.g.: %INBOX%, %OUTBOX%\Folder name 5...or...%TASKS%, %CALENDARS%\Folder name 6).

Important: It is highly recommended to specify the root mailbox folders using wildcards (%). Wildcards ensure, that the given mailbox folder (e.g. the “INBOX” folder) will be processed regardless of the language settings of the mailbox. This is important mainly for companies who archive mailboxes using different languages. Subfolders must be added to a root folder with a backslash (\).

Note: It is important to bear in mind, that with selecting “Recursive, starting from a single folder” filtering type under “Include folders” section, and leaving the folder path textbox empty the whole selected mailbox will be archived:

Address book objects to process

Name	Type
<input checked="" type="checkbox"/> edit.balazsy	Mailbox

Include folders

Folder filtering type:

In our use case we select the whole “INBOX” to archive:



Include folders

Folder filtering type:

Recursive, starting from a single folder

%INBOX%

✓ Exclude folders

With this function you may set, which folders/subfolders should not be archived. If you would not like to exclude any folder from the archive process, you can skip these settings.

The folders may be excluded using one of the available methods: a) They may be **added manually** via the **+ new** option; b) they may be **imported** in one of the available file formats via the **import** option.

Important: Due to different language settings in the user mailboxes, it is highly recommended to specify the root folders using wildcards (%). Subfolders must be added to a root folder with a backslash (\).

Exclude folders

a) **+** new b) **↶** import

a) Add exclude folders manually:

Click on **+ new** option. In the **Exclude folder** dialog's textbox specify the folder(s) to be excluded. Use the hints that are featured in the same dialog. %INBOX%\TECH-ARROW pattern on the picture below means that "TECH-ARROW" folder on the "INBOX" root folder will be excluded.

Exclude folder ×

Exclude folder settings

Pattern:

Hint:

\Example	Exclude the folder Example on the root
\Example*	Exclude subfolders of the folder Example on the root
Example	Exclude all folders with name Example
Example*	Exclude all subfolders of folders with name Example
Ex*	Exclude all folders that start with Ex
Ex**	Exclude subfolders of all folders that start with Ex
\Ex*	Exclude all folders that start with Ex on the root
\Ex**	Exclude all subfolders of folders that start with Ex on the root

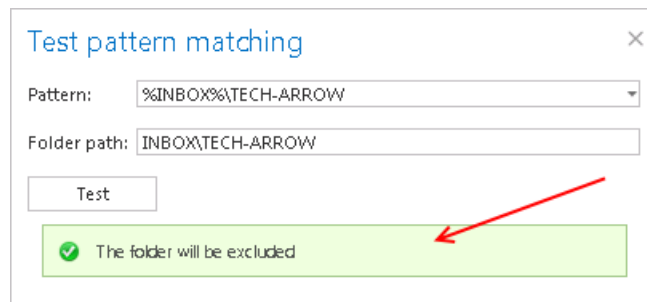
The entered pattern is case-insensitive

Test pattern button



This button was developed to check, if the entered pattern will be suitable for the path that the user would like to exclude from the archiving process. With clicking on the **Test pattern** button, open the **Test pattern matching** window. Enter the folder path into the **Folder path** field (this time without the % sign), and click on **Test** button.

The test will be successful, if the **Pattern** was entered correctly into the **Exclude folder** window.



c) Import the list of exclude folders:

Exclude folders may be imported from files in one of the available formats: CSV, XML, Tab delimited files or Space delimited file. The file to be imported must contain the list of exclude folders. **Important:** Root folders must be specified in wildcards (%) in the import files. Subfolders must be added to a root folder with a backslash (\). To import such a file with the list of folders refer to chapter [Importing contentACCESS configurations from files](#) of this guide.

✓ Item filtering

This configuration enables filtering among your items by their message class. Using this filter the user will be allowed to select different document types, such as mails, documents, contacts etc. to archive.

Note: The message classes excluded in the Email archive [System settings](#) take always priority over the **Item filtering** settings defined in the archive job.

Important: In case of **custom Exchange solution(s)** used for emails the **custom email properties will not be archived!** The recommended solution: do not archive these emails and/or use the exclude feature (in Email archive [System settings](#)) for these custom message classes.

To set message class filters in the archive job activate the **Message class filter** button by checking the checkbox next to it, then click on the active button.

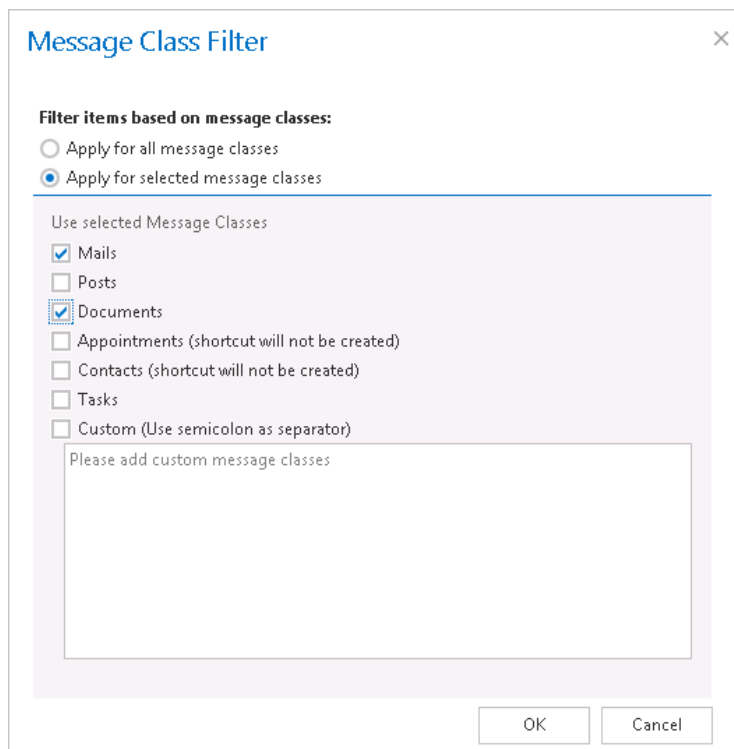
Item filtering

Filtering type:

No filters set

 Message Class filter

In the **Message class filter** dialog it is possible to choose if the filter will be applied for all message classes (choose radio button **Apply for all message classes**) or only for many selected classes (**Apply for selected message classes**). It is also allowed to add **Custom message classes** to the already existing ones. In this use case we will archive emails and documents only:



✓ Exclude addresses

With the “Exclude addresses” feature you may exclude certain

- user mailboxes (e.g. john.arrow@tech-arrow.com) or
- domains (e.g. @microsoft.com) from the list of archivable messages.

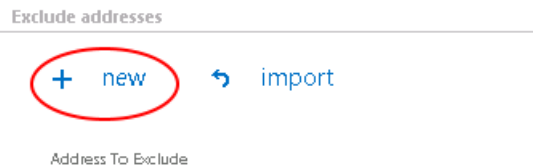
The filtering option is configurable and it filters emails based on

- recipient(s),
- sender(s) or
- both (recipients and sender).

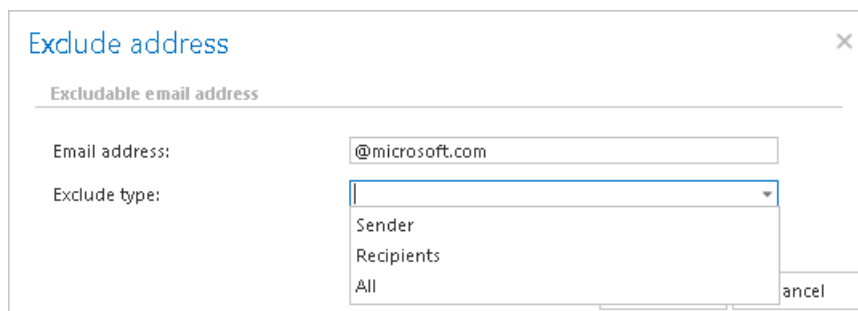
The list of objects to be excluded may be



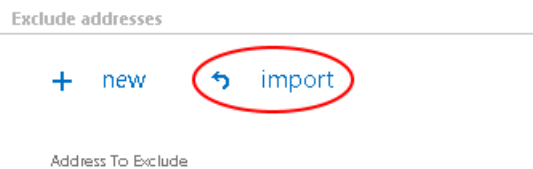
a) Added to contentACCESS manually using the **+new** option;



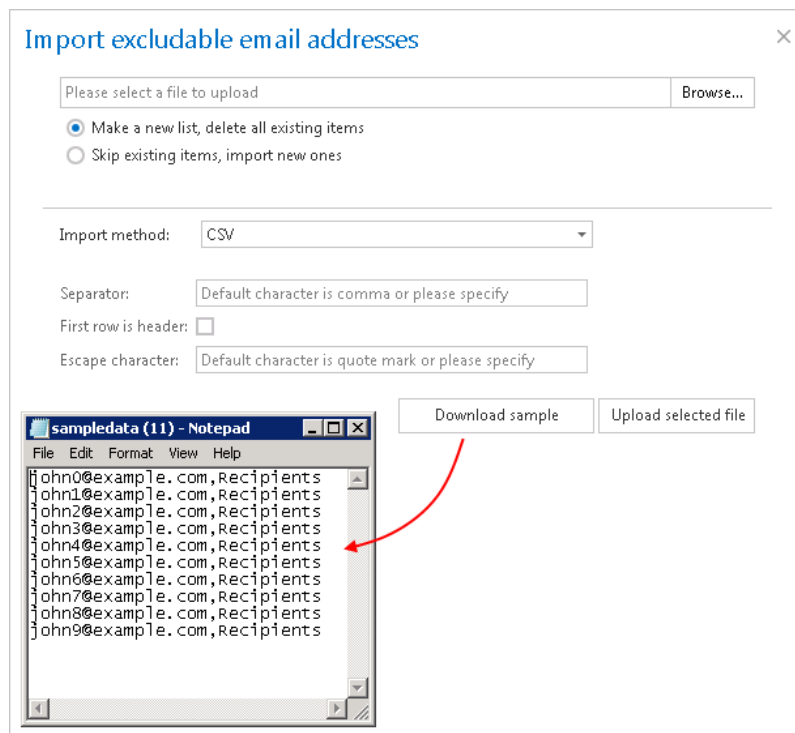
Click on **+new** to open the **Exclude address** dialog. Enter the object to be excluded, and select the **Exclude type** (Sender, Recipient, All) to be applied.



b) Imported into contentACCESS from a file using the **import** option.



The file to import usually contains 2 columns: first column with the email addresses (or domains), 2nd column with the information if the object is sender, recipient or can be both. A sample import file may be viewed using the “Download sample” button. (For more information refer to chapter [Importing contentACCESS configurations from files.](#))



- ✓ **Notification settings.** Select here, when you will need to get notification emails from the Email archive job. It is possible to set here, if you need such a notification email always/never, or, you need it only in case when an error/warning occurred during the archiving process – for example, if the archive of one or more items failed, then you may get a notification email about this error. Into the **Recipient list** textbox insert the email address(es) of the person(s), who will get such notifications. Notifications should be used if the administrator does not use the monitoring feature.

Notification settings

Send when:

Recipient list:

- ✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the email archive job. The recommended value is “2”.

Resource settings

Worker thread count:

- ✓ **Save your changes!!**



Combining the shortcutting methods in an Email archive job

What are the advantages of combining the shortcutting methods for the user?

Companies use the “Keep original” archiving method on a daily base. This archive method ensures, that the emails and its attachments are ready at hand during the time when they are still in use. After certain time period (usually after 6 months) it is redundant to keep these emails in the mailbox(es), as they take up too much space. However, these emails must be still easily accessible at any time. From this reason, it is recommended to replace them with shortcuts, which save space in the mailboxes but guarantee easy access to the older mailbox items. With combining the shortcut methods the end user will easily achieve the demanded result.

This use case will demonstrate how to configure an Email Archiving job, which will archive the items older than 10 days, while keeping them in the original file location. The job will also replace these items with shortcuts after 6 months. The job combines the “Keep original” archiving method with the shortcutting after the item reaches a certain age (6 months in this use case). The size of the items to be archived and shortcutted can be set as well.

Note: If two archive processes are combined (as in this use case), then the archive process will run in two stages, too. By the first job running the emails will be archived while keeping the original, by the 2nd job running these items will be replaced with shortcuts.

The following steps should be executed to set up an email archive job using the advantages of this method:

- ✓ **Set up a new Email Archiving job and open its configuration page.**
- ✓ **Set all required sections on the job’s configuration page.**
- ✓ **On the configuration page of the Email Archiving job navigate to the “Shortcutting” section, and check the “Apply to NOT ARCHIVED items” checkbox.**

Shortcutting

Shortcut types:

Apply to NOT ARCHIVED items
 Use shortcut for items where sent date is older than 10 days [\[Change\]](#) and size is anything [\[Change\]](#)

Apply to ALREADY ARCHIVED items with keep original shortcutting method
 Use shortcut for items where sent date is older than 6 months [\[Change\]](#) and size is larger than 100 KB [\[Change\]](#)

- ✓ **Set the “Keep original” archive method for items which are older than 10 days.** Choose the “Keep original” option from the dropdown menu and set that all items older than 10 days will be archived.



Shortcutting

Shortcut types:

Apply to NOT ARCHIVED items
 Use shortcut for items where sent date is older than 10 days and size is anything

Apply to ALREADY ARCHIVED items with keep original shortcutting method
 Use shortcut for items where sent date is older than 6 months and size is larger than 100 KB

✓ Apply the shortcutting to the items archived with the “Keep original” method, which are older than 6 months and larger than 100 kB. Choose HTML shortcut type, which will be used by the job.

Check the “Apply to ALREADY ARCHIVED items with keep original shortcutting method” checkbox. Choose the already configured “HTML” shortcut from the dropdown list. Set the sent date to 6 months and the size to “larger than 100 kB”.

Shortcutting

Shortcut types:

Apply to NOT ARCHIVED items
 Use shortcut for items where sent date is older than 10 days and size is anything

Apply to ALREADY ARCHIVED items with keep original shortcutting method
 Use shortcut for items where sent date is older than 6 months and size is larger than 100 KB

Note: Please keep in mind that the sent date of the email is the determinative date. The age and size of the emails to be archived/shortcutting can be modified anytime by using the “Change” buttons.

USE CASE: How to set up the shortcutting if all items should be archived and items under 100 kB should be kept in the original location, while items over 100 kB should be replaced with shortcuts? In this use case set the size filter in the 2nd row only (refer to screenshot above) to >100 kB and do not set a size filter in the 1st row.



Shortcutting

Shortcut types:

Apply to NOT ARCHIVED items

Use shortcut for items where sent date is **older than 10 days** [\[Change\]](#) and size is **anything** [\[Change\]](#)

Apply to ALREADY ARCHIVED items with keep original shortcutting method

Use shortcut for items where sent date is **older than 6 months** [\[Change\]](#) and size is **larger than 100 KB** [\[Change\]](#)

✓ **Save your settings** and **wait until the job starts to run** according to the configured scheduler.



Email restore job

This job type is used to restore the original mailbox items from the shortcuts back into the mailbox. A restore job relocates the already archived original back into the original location only in case, if it was archived with the shortcutting method (i.e. it has a shortcut in the mailbox with the same parameters). The age filter and message class filter settings will be considered as well. If the restore job finds in the source location (mailbox):

1. the original mailbox item – it will not touch it;
2. a shortcut with the same parameters – it will restore the original item to the source folder;
3. nothing (neither a shortcut, nor the original) – nothing will happen, the source folder will remain empty.

There are 2 restore methods that can be used by the restore job. The administrator may decide if

1. the data will be restored to the existing shortcut.
2. a new item will be created and the shortcut will be replaced by this new item.

The default restore method can be set on the [System settings](#) page (Email Archive tab → Settings group → System settings button, section “General settings”).

Restore jobs are run rarely, so it is recommended either to set a “One time scheduler” for them, or to start to run them manually from the grid.

Email restore job configuration

By this processing type the following sections must be configured:

✓ Scheduling settings:

In this step the running time(s) of the restore job must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via create new option. Restore jobs are usually scheduled with “one time schedulers”. Our restore job will run on 1st of October, with a start date 6 PM CET and will run until it finishes the restore process. (For more information about how to set schedulers refer to the section “[Schedules](#)” above.)

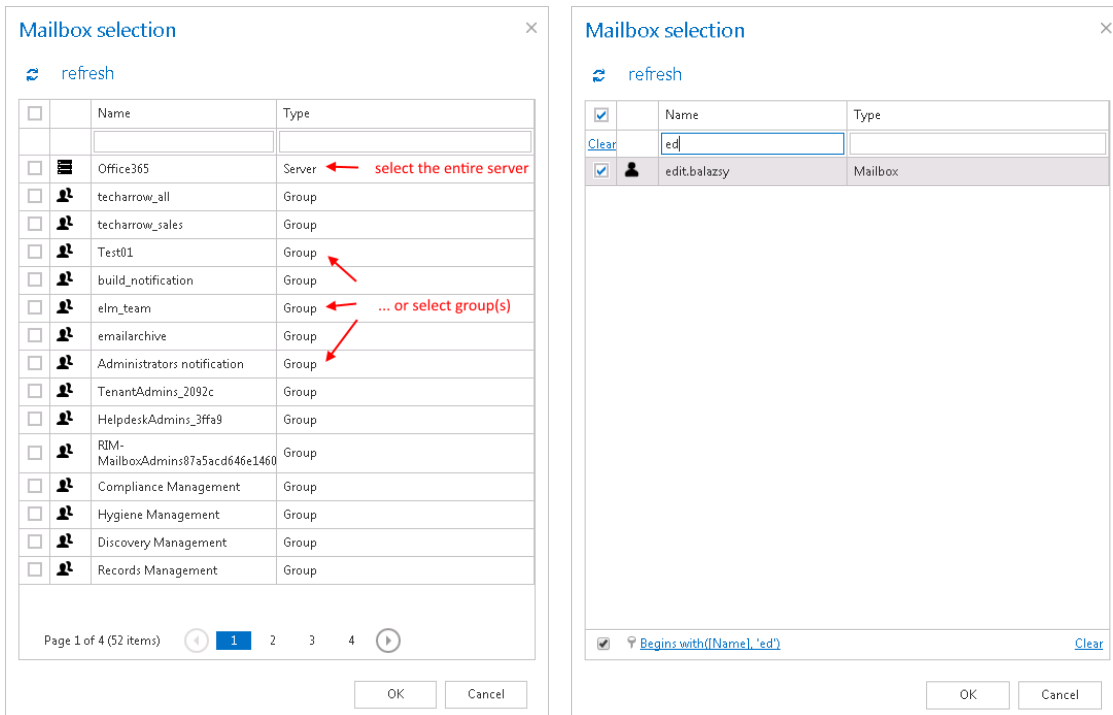
Scheduling settings

Scheduled in:



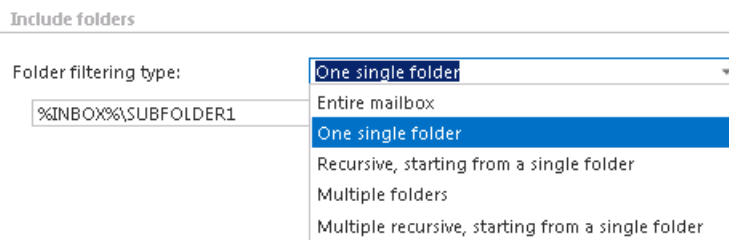
✓ **Address book objects to process**

Here you can select the mailboxes, groups or the entire Exchange server which will be processed by the restore job. In this use case we will restore the mailbox of “edit.balazsy”, so we select it from the list. To find it, we click on the **select** option and start to write the mailbox name into the **Mailbox selection** search field:



✓ **Include folders:**

Email restore job is crawling the entire mailbox or recursive folders from the mailbox. Before you enter the folder name(s) to be crawled, it is necessary to select the folder filtering type.



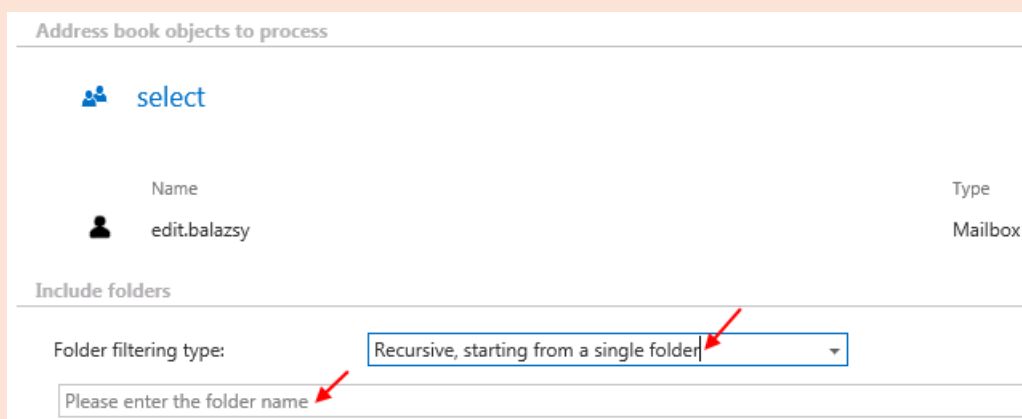
If you set **Entire mailbox**, then the whole mailbox including all folders will be restored. If you set **One single folder** type, then only one pre-selected folder will be processed (e.g. if you set %INBOX%\Subfolder1, then only Subfolder1 will be processed). If you set **Recursive, starting from a single folder** filtering type, then all folders starting from this folder will be processed (e.g. if you set



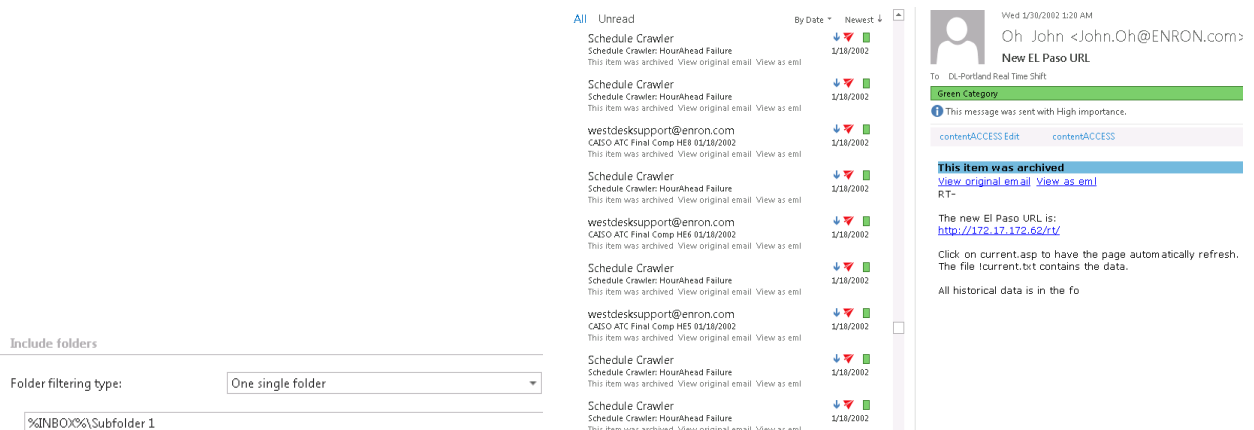
%INBOX%\Subfolder1, then starting from Subfolder1 every subfolders will be processed in the structure). The same rule applies to the **Multiple folders**, and to the **Multiple recursive, starting from a single folder**, too, but in these cases we can work with more folders simultaneously (e.g.: %INBOX%, %OUTBOX%\Folder name 5...or...%TASKS%, %CALENDARS%\Folder name 6.

Important: Due to different language settings in the user mailboxes, it is highly recommended to specify the root folders using wildcards (%). Subfolders must be added to a root folder with a backslash (\).

How to restore whole mailbox? It is important to bear in mind, that with selecting “Recursive, starting from a single folder” filtering type under “Include folders” section, and leaving the folder path textbox empty the whole selected mailbox will be restored:



Now we will restore the contents of single folder “Subfolder 1” on the “INBOX” root (check screenshot).



Screenshot A: Folder filter of the restore job

Screenshot B: Contents of "Subfolder 1" before restore

✓ Exclude folders

With this function you may set, which folders/subfolders should not be restored. The folders may be

- a) **added (via the + new option)** as it is described by the Email archive job configuration or
- b) **imported (via the import option).**

To learn more about these settings refer to chapter [Importing contentACCESS configurations from files](#) of this guide.

Exclude folders

a) + new b) ↶ import

Important: Due to different language settings in the user mailboxes, it is highly recommended to specify the root folders using wildcards (%). Subfolders must be added to a root folder with a backslash (\).

✓ Item filtering

This configuration enables for you to filter among your items according to age and message class. Only emails with the predefined filtering criteria will be processed. It is also enabled to use more filters simultaneously. To activate any of these filters, check the corresponding checkbox first, then click on the button to open the filter dialog:



- **Age filter:** If you wish to process items with a specific sent date, select an option from the **Select filtration type** list, and check the **Use Dates** checkbox. Now you can specify a date or date interval, which will determine, how old items will be processed by the job. This age filtering type should be used if you would like to restore items with a specific sent date. Examples of **using dates**:



Age Filter ✕

items younger than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Younger
 2/1/2015 12:00 AM

Days Months Years

OK Cancel

Age Filter ✕

items older than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Older
 2/3/2015 12:00 AM

Days Months Years

OK Cancel

Age Filter ✕

items between dates "From-To" will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

From: 2/1/2015 12:00 AM To: 2/3/2015 12:00 AM

From: To: Days Months Years

OK Cancel

Examples of filtering using days/months/years:

If the **Use dates** checkbox is not selected, then the date selection option becomes inactive. In this case it is allowed to filter between items older than/younger than a certain number of days/month/years. Enter the value into the **From, To** checkboxes. This age filtering type should be used if you would like to restore items “on the fly”, which are older/younger than a certain number of days/months/years. Now we will restore the items younger than 1 year (Screenshot A). If the Age filter has been set click **OK**.

Age Filter ✕

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Younger

1 Days Months Years

OK Cancel

Screenshot A

Age Filter ✕

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

From: 2/1/2015 12:00 AM To: 2/3/2015 12:00 AM

From: 1 To: 3 Days Months Years

OK Cancel

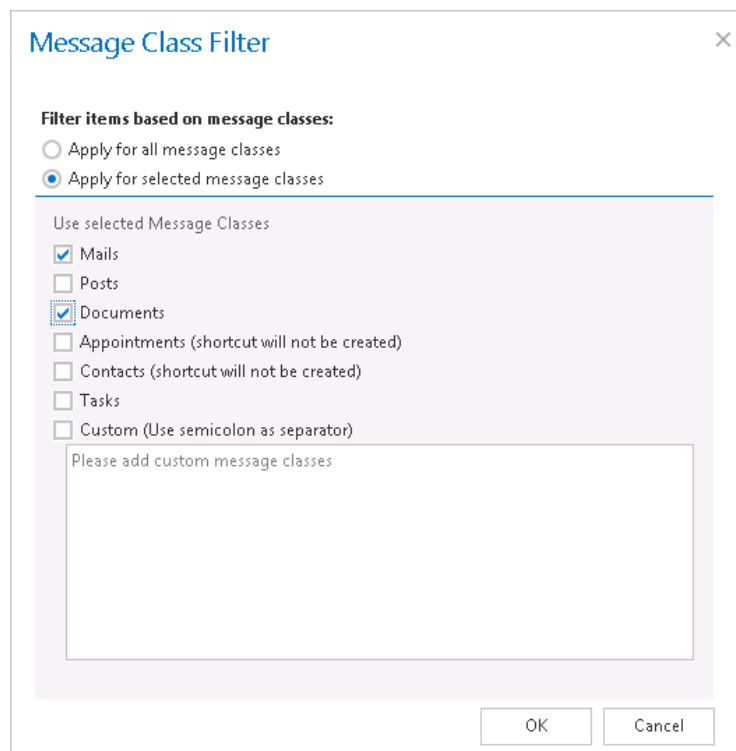
Screenshot B



- **Message class filter:** This filter was improved to select certain message classes to be restored. Using this filter the user will be allowed to select different message types to restore; mails, tasks, contacts etc. For filtering emails according to this criteria activate **Message class filter** button by checking the checkbox next to it, then click on the active button.

In this use case we will restore only mails and documents, so we check the **Apply for selected message classes** option and select Mails and Documents from the list.

Note: It is also allowed to add **Custom message classes** to the already existing ones.



✓ Exclude addresses

With the “**Exclude addresses**” feature you may exclude the desired

- ✓ domain(s) (e.g. *@microsoft.com*) or
- ✓ email address(es) (e.g. *john.arrow@tech-arrow.com*) from the list of messages to be restored.

You may filter between recipients, senders or both, and the objects to be excluded from the restore may be imported from a file (using option **import**) or added manually (using option **+ new**). The settings are the same as we described in the email archive job above.



Exclude addresses

+ new ↶ import

Address To Exclude

- ✓ **Notification settings.** The user may select here, when to send notification emails from the restore job regarding the successfulness of the restore process. It is possible to set here, if you need a notification email always/never, or, you need it only in case when an error/warning occurred during the restoring process. Into the **Recipient list** textbox insert the email address(es) of the person(s), to whom such notifications will be sent. Notification emails may be useful, if the monitoring feature is not used to detect possible failures of job running.

Notification settings

Send when:

Recipient list:

- ✓ **Processing settings:** The administrator may select here, if he would like to use MAPI protocol to communicate with the Exchange server. EWS (Exchange Web Services) connection is selected by default, if MAPI is not selected here. It is important to know, that O365 Exchange server does not support MAPI connection. Another requirement to use MAPI is to have Exchange server 2013 or earlier version. Since some other functions might still use EWS, the EWS connection must be configured in any cases.

Processing settings

Use MAPI to communicate with Exchange Server (Supported only for versions up to Exchange 2013)

- ✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the email archive job. The recommended value is "2".
- ✓ **Save your changes!**
- ✓ **Wait until the job starts to run according to the schedule.** If the job finished processing, the shortcuts linking to the matching items will be replaced by originals in your "Subfolder 1" folder.



Email recovery job

The function of this job is to re-generate the Exchange mailbox from the archive. This processing type is useful in the following cases:

- The entire mailbox was deleted,
- One or more folders were deleted,
- One or more items were deleted,

and the user would like to get back these already archived items from the archive storage.

The mailbox recovery is able to reconstruct the mailbox from the archive: the items already archived will be put back to the mailbox exactly into the source location. The mailbox recovery will also create the folder if this no longer exists in the mailbox. It will try to keep the folder type as well (if the information is available in the archive). Since all filtering options are active, it is possible to recover any part of the mailbox:

- One folder
- Multiple folders
- Recursive folder structure
- Whole mailbox (structure)
- Mails older then/Younger then/Between dates ...
- Different message classes (mails, documents, contacts etc.)

This processing type is also checking for duplicates, (so it is safe to run the same job multiple times, as duplicates will not be created):

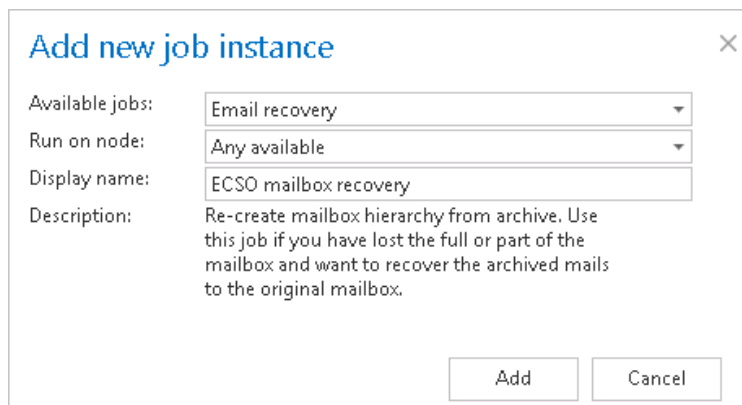
- If there is a shortcut (for the recovered mail) in the folder – the mail will not be recovered.
- If the same mail is already in the folder – the mail will not be recovered.
- If the same mail was archived multiple times to the same folder (archive-restore-archive) – only the youngest mail will be recovered.

Note: It is important to bear in mind, that duplicate checking is active only on folder level. Mails without internet message ID might be duplicated.

Note: There are also some limitations of the recovery technology, namely:

- Contacts can be recovered only into a contacts folder;
- Appointments can be recovered only into an appointment folder;
- Tasks can be recovered only into a tasks folder.

To create a new Email system recovery job click on **+ new** on the page of the email archive jobs. The **Add new job instance** dialog opens. Select “Email recovery” from the dropdown list, enter the job’s name, select a node where it should run and click **OK**.



Email recovery job configuration

On the job’s configuration page the user is required to configure the following settings:

✓ Processing settings.

The administrator may select here, if he would like to use MAPI protocol to communicate with the Exchange server. EWS (Exchange Web Services) connection is selected by default, if MAPI is not selected here. It is important to know, that O365 Exchange server does not support MAPI connection. Another requirement to use MAPI is to have Exchange server 2013 or earlier version. Since some other functions might still use EWS, the EWS connection must be configured in any cases.

There are multiple options what to recover with a recovery job; the user may recover the original item, or he can get back the shortcut only. The user has the chance to select one of these 2 radio buttons:



Processing settings

- Use MAPI to communicate with Exchange Server (Supported only for versions up to Exchange 2013)
 Recover shortcut
 Recover original

- ✓ **Shortcut settings.** If the administrator would need to recover items as shortcuts, then the already configured shortcut selected right here will be used to recover them. If the administrator selected above to recover the original item, this configuration option will be then hidden.

Shortcut settings

Shortcut name:

- ✓ **Scheduling settings:**

Specify a scheduler to determine, when the recovery job will run. It is possible either to select a scheduler from the list or to create a new scheduler via **Create new** option. (For more information about how to set schedulers refer to the section [Schedules](#) above.) It is recommended to set here a **One time** scheduler, or to start the job manually.

Scheduling settings

Scheduled in:

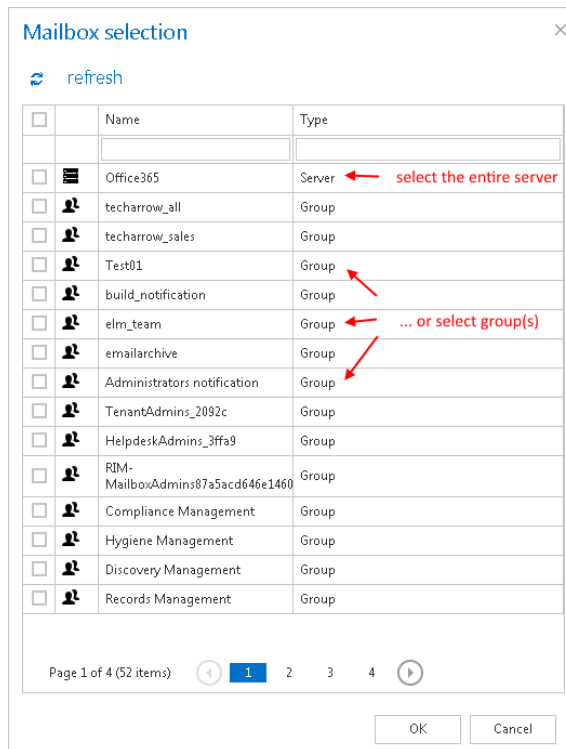
- ✓ **Notification settings.** Select here, when you will need to get notifications from the job regarding the successfulness of the recovery process. It is possible to set here, if you will get a notification email always/never, or you get it only in case when an error/warning occurred during the archiving – for example, if the recovery of one or more items failed, then you may get a notification email about this error. Into the **Recipient list** textbox insert the email address(es) of the person(s), to whom these emails should be sent.

Notification settings

Send when:
 Recipient list:

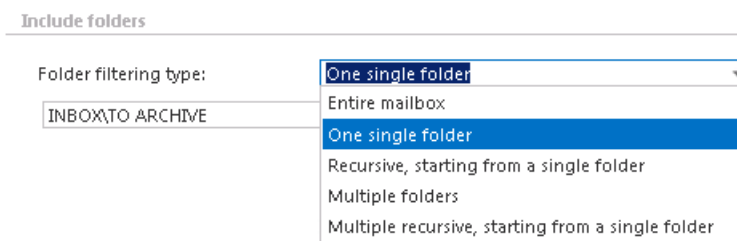
- ✓ **Address book objects to process**

Here you can select the mailboxes, groups or the entire Exchange server which will be processed by the recovery job. Click on the **select** option and check the groups or servers in the **Mailbox selection** window, then click on **OK**:



✓ **Include folders:**

Recovery job is able to recover any folders of the mailbox; the entire mailbox, one single folder, multiple folders, recursive folder structures etc. Before you enter the folder name(s) to be crawled, it is necessary to select the folder filtering type.

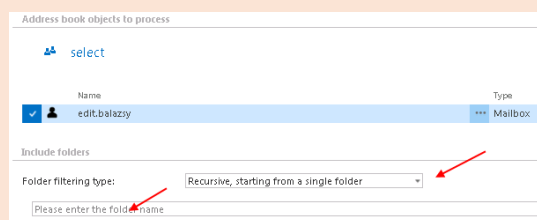


If you set **Entire mailbox**, then the whole mailbox including all folders will be recovered. If you set **One single folder** type, then only one predefined folder will be processed (e.g. if you set INBOX\Subfolder1, then only Subfolder1 will be processed). If you set **Recursive, starting from a single folder** filtering type, then all folders starting from this folder will be processed (e.g. if you set INBOX\Subfolder1, then starting from Subfolder1 every subfolders will be processed in the structure). Subfolders must be added to a root folder with a backslash (\).

The same rule applies to the **Multiple folders**, and to the **Multiple recursive, starting from a single folder**, too, but in this case we can work with more folders simultaneously (e.g.: INBOX, OUTBOX\Folder name 5...or...TASKS, CALENDARS\Folder name 6

Important!! By the recovery processing type it is **not required to specify the root folder with wildcards** (percent signs). If any wildcard is specified, the recovery process will not be successful. E.g. instead of %INBOX% use form INBOX, instead of %TASK% use form TASK etc. The same rule applies to **Exclude folder** configurations, too.

How to recover whole mailbox? It is important to bear in mind, that with selecting “Recursive, starting from a single folder” filtering type under “Include folders” section, and leaving the folder path textbox empty the whole selected mailbox will be recovered:



✓ Exclude folders

With this function you may set, which folders/subfolders should not be recovered. The folders that should not be recovered may be

- a) Added via the “+ new” button – The settings are the **same as by the Email archive job with ONE EXCEPTION:** by the Email recovery job the **root folder mustn't be specified using wildcards.**
- b) Imported from a file via the **import** button - For more information refer chapter [Importing contentACCESS configurations from files](#) of this guide.

Exclude folders

a) **+** new b) **↶** import

✓ Item filtering

This configuration enables for you to filter among your items for recovering by 2 types of criteria: by age and message class. Only emails with the predefined filtering criteria will be processed. It is also enabled to use more filters simultaneously. To activate any of these filters, check the corresponding checkbox first, then click on the button to open the filter dialog:



Item filtering

Filtering type: No filters set

Age filter
 Message Class filter

- **Age filter:** To filter out recoverable items with specific send dates choose an option from the **Select filtration type** list, and check the **Use Dates** checkbox. Now specify a date/date interval to filter out items, of which sent date match with the search criteria entered here. The items falling under this sent date interval will be selected to recover. Examples of **using dates**:

Age Filter ✕

items younger than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Younger
 ▼

Days Months Years

Age Filter ✕

items older than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Older
 ▼

Days Months Years

Age Filter ✕

items between dates "From-To" will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

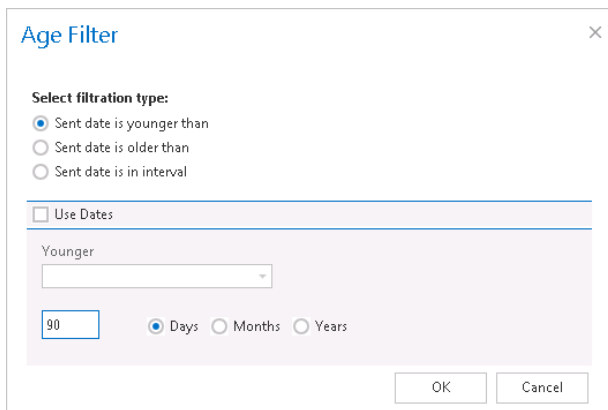
Use Dates

From: ▼ To: ▼

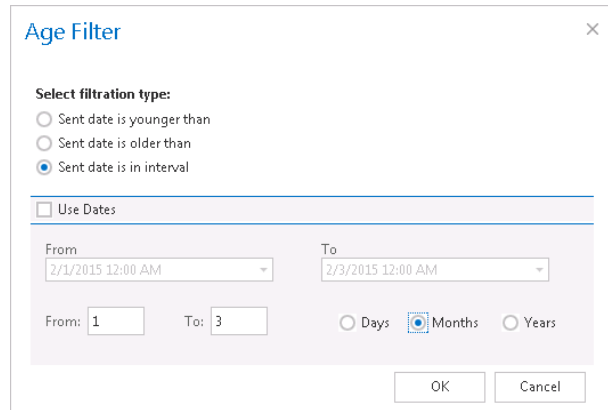
From: To: Days Months Years

Examples of filtering using days/months/years:

If the **Use dates** checkbox is not selected, then the date selection option becomes inactive. In this case it is allowed to filter between items older than/younger than a certain number of days/month/years. This age filtering type should be used if you would like to recover those items, which are older/younger than a certain number of days/months/years (i.e. items younger than 1 year). Enter the desired value into the **From, To** checkboxes. Then click **OK**.



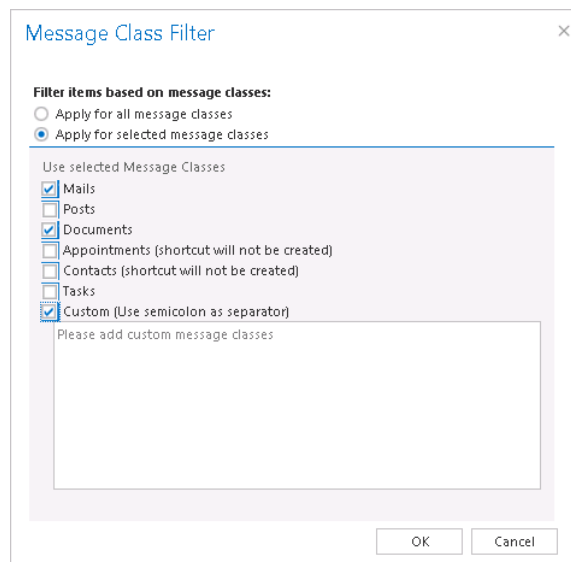
Screenshot A: Filtering items younger than 90 days



Screenshot B: Filtering out up to 3 months old items

- **Message class filter:** Using this filter the user will be allowed to filter out different message types, such as mails, documents, contacts etc. that he would like to recover. For filtering emails according to this criteria activate **Message class filter** button by checking the checkbox next to it, then click on the active button.

In the **Message class filter** dialog select all (choose radio button **Apply for all message classes**) or specify certain message classes (**Apply for selected message classes**). It is also allowed to add **Custom message classes** to the already existing ones. After all necessary custom classes have been checked click on **OK**.



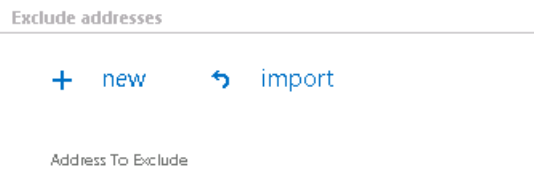
✓ **Exclude addresses**

With the “**Exclude addresses**” feature you may exclude the desired

- ✓ domain(s) (e.g. *@microsoft.com*) or
- ✓ email address(es) (e.g. *john.arrow@tech-arrow.com*) from the list of messages to be recovered.



You may filter between recipients, senders or both, and the objects to be excluded from the recovery process may be imported from a file (using option **import**) or added manually (using option **+ new**). The settings are the same as we described in the email archive and email restore jobs above.



- ✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the recovery job. The recommended value is “2”.
- ✓ **Save your changes!!**
- ✓ **Wait until the scheduler starts the job.**

Mailbox move job

This job allows to move archived mailbox data (archived emails) between stores and databases.

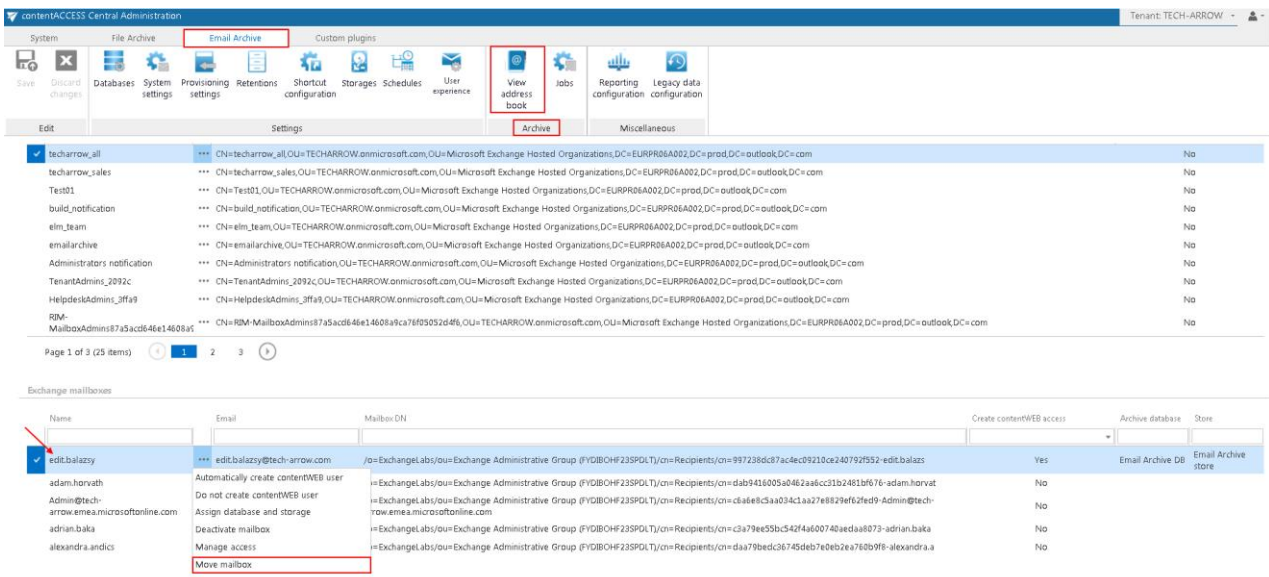
Typical use cases:

- **If you did a mistake and you've archived the same mailbox into 2 different databases**, then you will be able to access only the archived items of the actually associated database (configured in **Email Archive → Archive → View address book**). You can easily troubleshoot such a problem with using the “consolidate” option of the Move mailbox job. This moves the items from the wrong database to the correct one.
- A typical use case of a database/storage move can be, if one company **employee was dismissed, and his mailbox archive data need to be moved** into another storage/database.
- If the already associated database/storage has **no more storage capacity thanks to the big volume of the archived items**, then the administrator may move the archive mailbox data somewhere else.
- The **mailbox move is also enabled on the level of tenants** (cross-tenant move), e.g. if one company affiliate will be closed and its mailboxes (archived emails) need to be moved into the database/storage of another affiliate (tenant) etc.

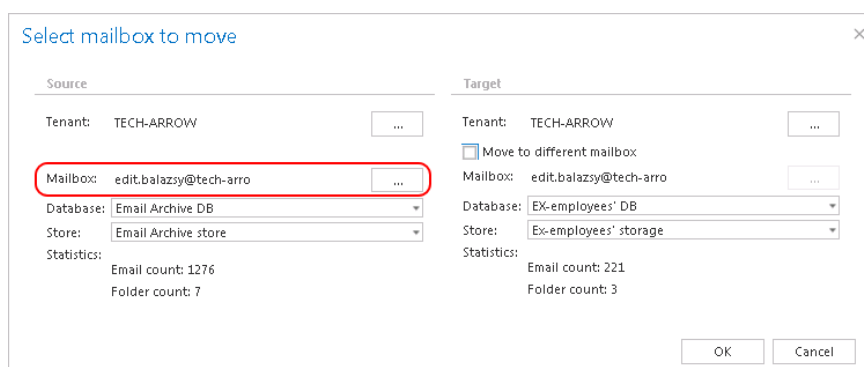


Mailbox move job configuration

There are multiple options how a mailbox move job can be created; you can add it as a new job from the Email archive’s **Jobs** page, or you can create a mailbox mover job directly from the address book, with selecting the “Move mailbox” option from the desired mailbox’s context menu. On the screenshot below can be seen, how a mailbox move job is created for mailbox “edit.balazsy@tech-arrow.com” directly from the address book.



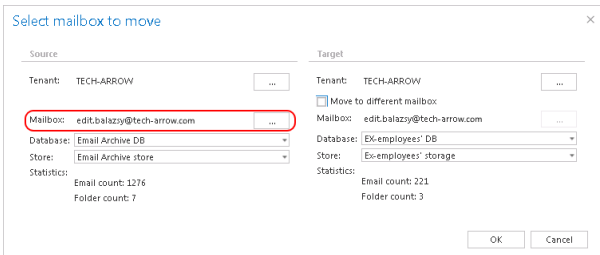
With clicking on the “Move mailbox” option in the mailbox’s context menu, the **Select mailbox to move** dialog will automatically open. The desired source mailbox will be already preselected in this dialog. The new mailbox mover job will be created with the name of the selected mailbox. By default, the job will be able to run on any available node.



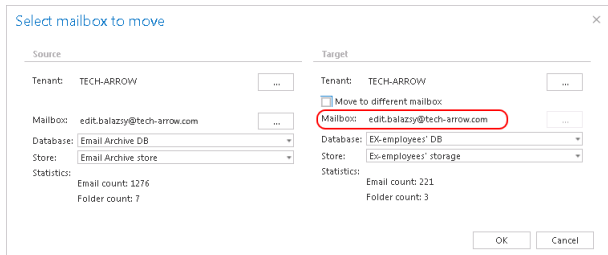
Note: The same dialog can be opened on the job’s configuration page, with clicking on “add” under **Mailboxes to move** section.

In the **Select mailbox to move** dialog the administrator may set the following:

- A) The source mailbox, of which archived data should be moved: if the job has been created from the address book, the source mailbox will be preselected; if the job has been created from the jobs page, the source mailbox has to be configured manually.
- B) The target mailbox; in special cases the source mailbox archive data may be moved to a target mailbox archive. To achieve this, check the “Move to different mailbox” option on the target side and specify a new target mailbox. If you would not like to move the source mailbox archive data to a target mailbox archive, select the source mailbox on the target side, too (by default it is configured like this).

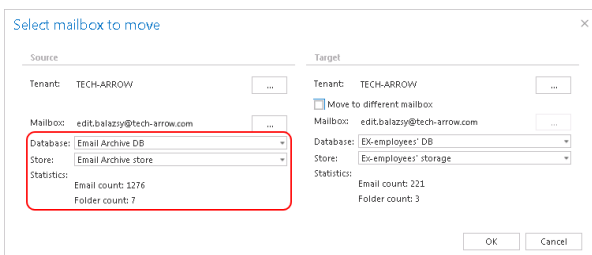


Screenshot A

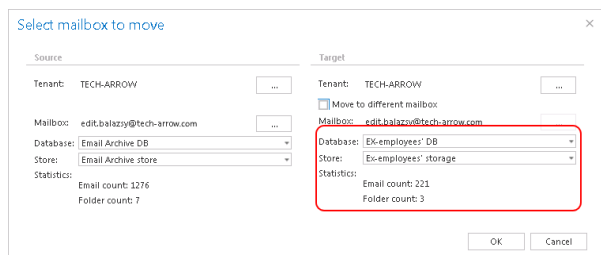


Screenshot B: Source mailbox archive selected on the target side

- C) The source database and storage: by default the already associated database and storage of the source mailbox are set here. The source mailbox statistics (email count, folder count) can be seen in the source column.
- D) The target database and storage: the user may select here the target destinations, where the archive data of the source mailbox should be moved. On Screenshot D we have selected Ex-employees’ DB and Ex-employees’ storage. The target mailbox statistics (email count, folder count) can be seen in the target column as well.

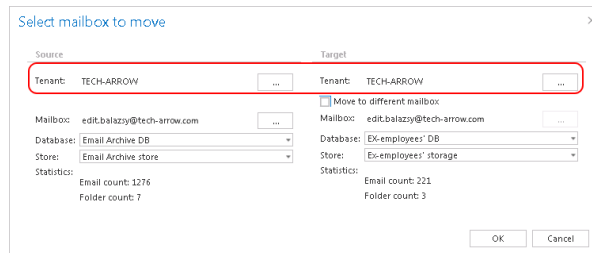


Screenshot C: Associated DB and store



Screenshot D: Target DB and store

E) An across tenant move is also supported:



When configuring a Mailbox move job the administrator is also required to set the running time of the job, notification settings and the resource settings on the job's configuration page:

✓ **Scheduling settings:** the administrator may select a scheduler from the dropdown list, which will determine, when the moving process will run. By this plugin type it is recommended to set one time scheduler, or to start the job manually. For more information how to set up schedulers please refer to section [Schedules](#).

Scheduling settings

Scheduled in:

✓ **Notification settings:** if you want to use notification emails to be informed about potential failures of the mailbox move process, then select a) in which cases such notifications need to be sent, b) who will be the recipient of such emails. It is recommended to set here **Errors or warning occur** option (or to check the job events on the monitoring page).

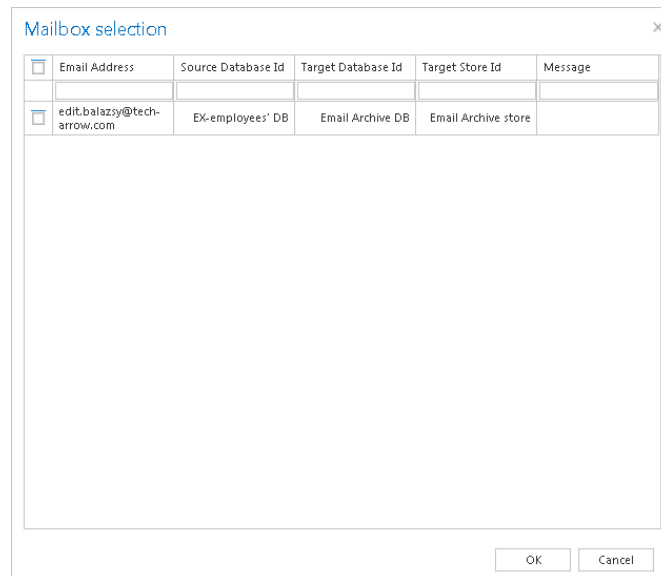
Notification settings

Send when:

Recipient list:

✓ **Resource settings.** Set the value, which will determine how many items will be processed simultaneously by the mailbox move job.

Option “consolidate” on the job’s configuration page: Consolidation option is the fastest way of how to correct your mistake, if you have archived the same mailbox into multiple databases. By clicking the consolidate button the system will find all mailboxes which are in two or more databases and will list them on the **Mailbox selection** page. The target database/target store are the already assigned ones based on the **View address book**. So, once you have the list, you just select one or more mailboxes and click **OK**.



If this dialog is empty, it means that all your metadata are in one database only, there is nothing to correct.

How to check if the mailbox move was finished successfully? The user may check on the monitoring page, if the mailbox move job successfully moved the selected mailbox archive to the desired database/storage. To check this, navigate to the email archive jobs' page on the ribbon (**Email Archive** tab → **Archive** → **Jobs**). Open the context menu of the mailbox move job, and click on "Show last logs". This will redirect the user to the monitoring page, where the last run of the selected job will be preselected, and the correspondent job events can be viewed.



Shortcut synchronization job

The shortcut synchronization is a process of keeping live emails in sync with the archive.

When an item is archived, the item location is stored in the archive. The user can later delete, move or copy the archived item in the mailbox – but the archive does not follow these changes.

The main function of shortcut synchronization is to update the location of the item in the archive based on the current location of the item in the live mailbox. Secondary functions of the shortcut synchronization are:

- Detection of foreign shortcuts and restore of such items
- Shortcut cleanup – removal of expired shortcuts

To start the shortcut synchronization, the prerequisites are the following:

- Configured Email Archive (based on the Email Archive settings described [here](#))
- Configured Shortcut synchronization job

Note: If the shortcut synchronization needs to restore a shortcut, the globally defined restore method will be used (which is either an in-place restore or restoring using a new item). These settings are defined in the Email Archive [System settings](#) described earlier.

Shortcut synchronization job configuration

Create a new job instance and open its configuration page. In this use case we will create a configuration job with name “My sync job” that will synchronize Jack Bolton’s archive. We know, that some shortcuts in this user’s mailbox have been moved to another mailbox folder. The job will update the location of these items in the archive based on the items location in the mailbox. It will run only once.

The configuration of this job consists of the following sections:



contentACCESS Central Administration Tenant: TECH-ARROW

System | File Archive | **Email Archive** | Custom plugins

Save | Discard changes | Databases | System settings | Provisioning settings | Retentions | Shortcut configuration | Storages | Schedules | User experience | View address book | Jobs | Legacy data configuration

Edit | Settings | Archive | Miscellaneous

My sync job

Email Archive > Archive > Jobs > My sync job

start immediately
 refresh
 disable auto refresh
 deactivate job
 logs
 edit

Scheduling settings

Scheduled in:

Notification settings

Send when:

Recipient list:

Processing settings

Use MAPI to communicate with Exchange Server (Supported only for versions up to Exchange 2013)
 Allow to update folder path based on shortcut location
 Allow to clean up shortcuts
 Allow to restore foreign shortcuts

Address book objects to process

Name	
jack.bolton	...

Include folders

Folder filtering type:

Exclude folders

Pattern:

No data to display

Resource settings

Worker thread count:

[Online help](#)

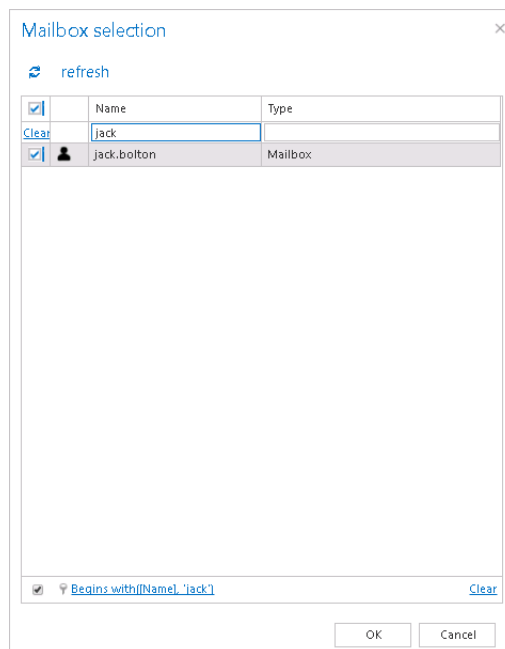
- ✓ **Scheduling setting:** Defines the time slots of the job running. Our synchronization job will run only once, so we have configured a one time running scheduler for that. For more information about schedulers refer to section [Schedules](#).
- ✓ **Notification settings:** In case that you want to get notification emails if any errors or warnings occurred you can set it here.

✓ **Processing settings:** The processing settings specify the functions which should be executed inside one job. Performing multiple functions inside one job is optimizing the Exchange access: the mailbox is only read once, but multiple functions are performed on the same set of data.

- It is possible to use MAPI instead of EWS.
- The “Allow to update folder path based on shortcut location” checkbox turns on/off the folder path synchronization.
- The “Allow to clean up shortcuts” function is not implemented yet. Please ignore this option.
- The “Allow to restore foreign shortcuts” checkbox turns on/off the automatic restore of shortcuts not belonging to the mailbox.

In this use case we set the folder update allowance option only like shown on the picture above.

✓ **Address book objects to process:** Allows to set the whole Exchange server, Exchange groups or mailboxes to be involved in the job. In this use case we will synchronize Jack Bolton’s mailbox, so we set his email address here. Click on “select” and search for his mailbox in the pop-up dialog:



✓ **Include folders:** Set the folders (in our use case the entire mailbox) that the job needs to process.



- ✓ **Exclude folders:** Exclude the folders that should not be touched by the synchronization job. The list of folders can be imported from files, too (more information about this option [here](#)). Only folders allowed by the include/exclude filters are processed.

Note: it is recommended to process the entire mailbox to receive the best coverage.

In this case we wouldn't like to exclude any mailboxes, so we skip these settings.

- ✓ **Resource settings:** The selected mailboxes are processed on multiple threads defined here. Each thread is processing one folder from any mailbox at any time.

Save your settings and wait until the scheduler starts the job (or start it manually from the header bar).

The synchronization process is running based on the following rules:

Once the live mailbox folder items are loaded, the corresponding archive folder is located in the database. If there is no such folder yet, the folder is created in the archive (refer to option "Allow to update folder path" in the Processing settings).

The items from the archive folder are loaded from the database.

If the touched item (touched item = item with custom message properties and/or tagged with a custom category) and archived item are matching – the item is skipped (reported as skipped).

If the touched item is not found in the archive folder but the item belongs to the mailbox – the folder path is updated in the archive (reported as updated).

If the touched item is not found in the archive folder but the item does not belong to the mailbox – the item is restored if "Allow to restore foreign shortcuts" is allowed. (Reported as restored).

If the touched item is not found in the database at all, the item is reported as failed (details describing the reason).

Feature limitations - Multiple copies of the same shortcut

If the user has multiple copies of the same shortcut in the mailbox, the shortcut synchronization will not be able to determine the correct location. In such cases the last writer will win (the folder which was processed as the last will win).



Custom plugins

Many companies require to archive, access and collaborate on documents residing in their own data management systems (e.g. on the Exchange servers, SharePoint sites, Datengut storages etc.). This requires to have a custom solution that connects the respective data management system(s) with the central archive. contentACCESS uses its custom plugins to manage these scenarios in an organization.

contentACCESS custom plugins enable to categorize, replicate, archive, protect, access, search for your data, or to connect them to your MS Outlook (using [officeGATE](#)) and collaborate on them from your mailbox directly. With custom plugins you can categorize the desired data into certain SharePoint libraries, share links to files residing in different DMSs directly from the mailbox, replicate the storages to protect your data etc.

The following chapters of this guide will introduce the configuration steps of the most used contentACCESS Custom plugins.

Email management job configuration

This plugin was developed for scanning mailboxes and processing & archiving the email messages and its contents into a specific storage.

After you have successfully created a new job to Email management plugin (for more information how to create a new job please refer to section [Creating new jobs in contentACCESS](#)) you can start to configure it. Navigate to the **Custom plugins** → **General** → click on **Jobs** button and choose the job from the list. Click on ellipsis (...) and choose **Configure** option from the context menu as on Screenshot A (or double click on it in the grid). It is also possible to open the job for further configuration with a double click on the corresponding job icon in the **Jobs** ribbon group (Screenshot B).



Jobs
Custom plugins > General > Jobs

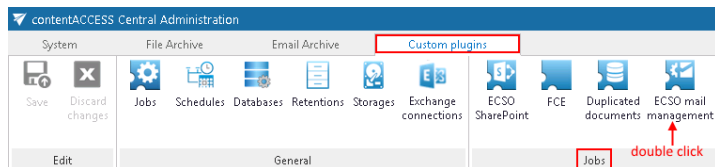
+ new refresh

Filter: Active jobs

ID	Display Name	Status
60	ECSO mail management	Idle

- Start
- Stop
- Delete
- Configure**
- Show last logs
- Rename
- Deactivate

Screenshot A



Screenshot B

The job's configuration page will open, where the following section must be configured:

✓ **EWS Settings**

As first step it is necessary to select the previously configured Exchange connection from the dropdown list. Using these connection settings the user will be allowed to operate over the mailboxes (check section **Mailbox settings** below). For further information how to perform **EWS** (Exchange Web Services) settings please refer to section "[Exchange connections](#)".

Exchange connection settings

Exchange connection name:

Note: The user set in the "[Exchange connections](#)" must have full access permission to all mailboxes.

✓ **Database settings:**

Select a connection from the dropdown list where the metadata will be stored. (For further information how to set database connectors please refer to section "How to create/configure databases – All databases".)

Database settings

Database connection: ✓

✓ **Scheduling settings:**

In this step the running times of the Email management plugin instance must be selected. It is possible either to select a scheduler from the list or to create a new scheduler via create new option. (For more information about how to set schedulers refer to the section [Schedules](#) above.)

Scheduling settings

Scheduled in:

Every Monday at 12.00 CET

Create new ...

Every Friday

Every Monday at 12.00 CET

Select an existing ... →

← ... or create new.

✓ Include folders:

Email management plugin is crawling in one single or in multiple mailbox folders, and also in recursive folder structures. Before you enter the folders to be crawled, it is necessary to select the folder filtering type.

Folder selection

Folder filtering type:

One single folder

One single folder

Recursive, starting from a single folder

Multiple folders

Multiple recursive, starting from a single folder

If you set **One single folder** type, then only one predefined folder will be processed (e.g. if you set %INBOX%\Subfolder1, then only Subfolder1 will be processed). If you set **Recursive, starting from a single folder** filtering type, then all folders starting from this folder will be processed (e.g. if you set %INBOX%\Subfolder1, then starting from Subfolder1 every subfolders will be processed in the structure).

The same rule applies to the **Multiple folders** and to **Multiple recursive, starting from a single folder** types, too, but in this case we can work with more folders simultaneously (e.g.: %INBOX%, %OUTBOX%\Folder name 5...or...%TASKS%, %CALENDARS%\Folder name 6)

Note: It is possible to either select an item type from the dropdown list or to enter the item type to the textbox manually. If crawling more item types/folders always put item types between percent signs and also separate them with a comma.

%INBOX%

%OUTBOX%

%DELETEDITEMS%

%SENTITEMS%

%CALENDARS%

%CONTACTS%



✓ **Storage settings:**

In this section choose an already configured storage from the dropdown list. The processed emails will be stored here. (For more information how to set storages check section “[Storage](#)” above.)

Storage settings

Storage name:

✓ **Item filtering:**

This configuration enables for you to filter among your mailbox-items by 3 types of criteria: by age, size or message class. It is also enabled to use more filters simultaneously. To activate any of these filters, check the corresponding checkbox first, then click on the button to open the filter dialog:

Item filtering

Filtering type:

Age filter
 Size filter
 Message Class filter

- **Age filter:** If you select an option from the “Select filtration type” list, and check the **Use Dates** checkbox, and specify a date, then the age filter will filter out all items, of which sent date is younger/older than this specific date. It is also possible to specify certain time interval with the **Use Dates** function. In this case the items falling under this sent date interval will be filtered out. This age filtering type should be used if you would like to process emails with a specific sent date.

Examples of using dates:

Age Filter ✕

items younger than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Younger

Days Months Years

OK Cancel

Age Filter ✕

items older than the specified date will be processed

Select filtration type:

Sent date is younger than
 Sent date is older than
 Sent date is in interval

Use Dates

Older

Days Months Years

OK Cancel



Examples of **filtering using days/months/years**: If the **Use dates** checkbox is not selected, then the date selection option becomes inactive. In this case it is allowed to filter between items which are **Younger/Older than** a certain number of days/month/years. Enter the number into the checkbox next to the **Days/Months/Years** radio button (screenshot A). It is also allowed to filter items which belong to a certain period of time, e.g. between items from months 1 to 3 (screenshot B). This age filtering type should be used if you would like to process items, which are older/younger than a certain number of days/months/years (e.g. items older than 1 year). If the Age filter has been set click **OK**.

Screenshot A: processing items younger than 90 days

Screenshot B: processing items in age 1-3 months

- Size filter**: This filter can be very useful because it enables to find the biggest emails for further processing. If these large emails (and large attachments) are permanently processed, the Exchange server will be relieved from redundant megabytes which causes its slowness in many cases. For filtering emails according to this criteria activate **Size filter** button by checking the checkbox next to it, then click on the active button. In the **Size filter** dialog choose from the filtering types (**Bigger then**, **Smaller then**, or **Between values**), enter the size (in kilobytes) and click **OK**.



- **Message class filter:** This filter was improved to select certain message classes to be processed. Using this filter the user will be allowed to filter out different document types, such as mails, documents, contacts etc. For filtering emails according to this criteria activate **Message class filter** button by checking the checkbox next to it, then click on the active button.

In the **Message class filter** dialog it is possible to choose if the filter will be applied for all message classes (choose radio button **Apply for all message classes**) or only for some selected classes (**Apply for selected message classes**). It is also allowed to add **Custom message classes** to the already existing ones. After all necessary custom classes have been checked click on **OK**.

After all settings have been done a summary of filter settings the filter settings will be displayed under section **Item filtering** as it is shown on the screenshot below:

✓ Processing settings



The user can choose from 3 main types of how to store emails and attachments. It is possible either to archive the entire email message (in .msg format) with the attachment together (**Simple archive**), or just the attachment (**Archive attachment**). It is also enabled to archive the entire email and copy to the Public folder (**Archive and copy to Public folder**). This function helps to share the document with other users. Everyone with a user account and password on the Exchange server can access the Public Folder.

Processing settings

Processing type:

Custom categories to process

Split attachments

Create tag view

Public Folder user email:

Public Folder base folder:

Insert Public Folder data into the below displayed textboxes to establish the connection between the Public Folder and the archive management system:

Processing settings

Processing type:

Custom categories to process:

Split attachments

Create tag view:

Public Folder user email:

Public Folder base folder:

Custom categories to process function enables to restrict searching in the mailbox to the categories that are selected here. E. g. if Red Category is set this will mean that only those emails will be processed which were labeled with Red Category.

Split attachments: by checking this checkbox the email message in .msg format and the corresponding attachments will be stored separately from each other. Both will be stored in the selected storage, but separately from each other. This helps to save storage space. Let's assume, that emails of more users (for example 5 users) will be stored at the same storage. **Split attachments** function will recognize duplicate attachments and they will be stored only once (not 5x). However email bodies will be stored 5 times, as emails in different mailboxes have different metadata.

Note: With splitting attachments it is possible to spare more storage space for the company documents. It is obligatory that the selected storage supports single instancing.




Create tag view: contentWEB and officeGATE are both associated with contentACCESS. Thus emails and attachments processed in contentACCESS can be easily found in contentWEB and officeGATE, too. By creating tag view the items falling under more custom categories will be gathered together under a main folder, which is set here in the **Create tag view** textbox. This main folder will be displayed under this “tag view root name” both in contentWEB and officeGATE systems. Subfolders under this main folder will gather together all items falling under a certain custom category.

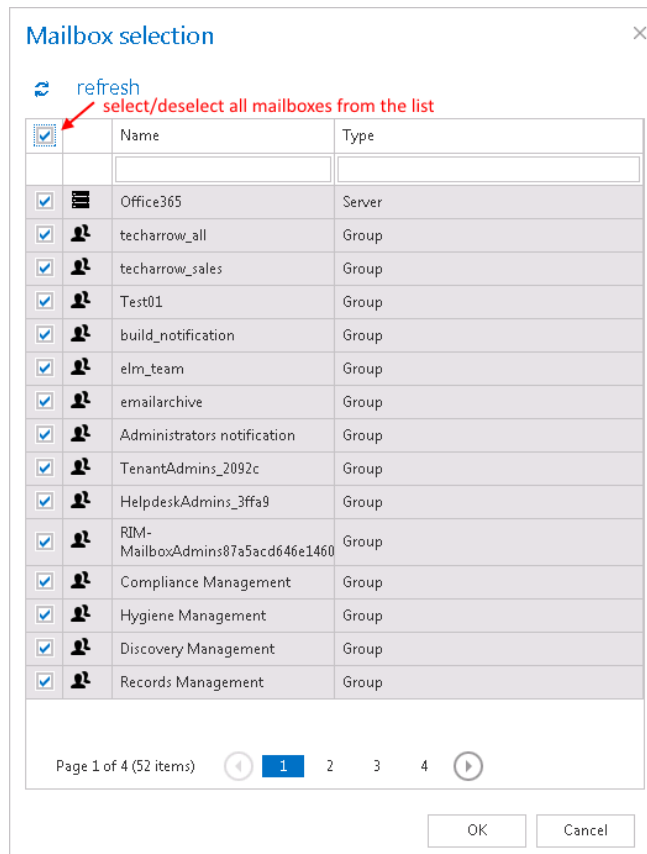
✓ Mailbox settings

In this section a new mailbox can be added which need to be processed. Click on **+ new** and fill in the **Name** and **Email** into the popup window. Also check **Is Active** checkbox, otherwise the added mailbox will not be crawled (crawling of the mailbox will be in sleeping mode). Click on **OK**:

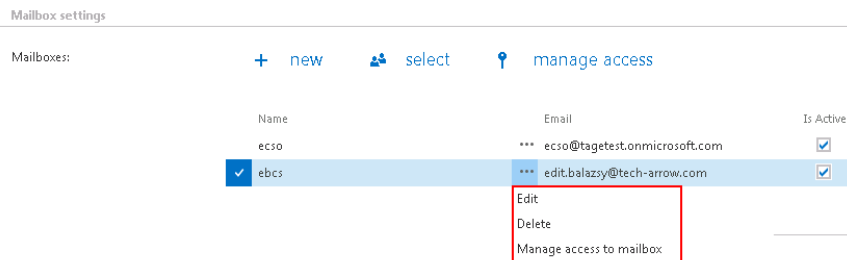
Dialog box titled "Edit mailbox" with the following fields and controls:

- Name: XY
- Email: X.Y@tech-arrow.com
- Is Active:
- Buttons: OK, Cancel

contentACCESS enables for you to crawl more mailboxes the same time. For selecting mailboxes to be crawled navigate to  **select** option and enter mailboxes into the **Mailbox selection** dialog box. With checking the checkbox next to **Name** you can select/deselect all mailboxes for further processing:



Under Mailbox settings you can also edit/delete or manage access to the selected mailbox(es). Click with left mouse on the ... (ellipsis) and choose an option from the dropdown list.



It is also possible to grant access to this mailbox for other users of contentWEB, officeGATE or who log in the mailbox through an online web application from mobile devices. By granting access to these users they will have an access to the archived messages of the selected mailbox. Click on **Manage access to mailbox** from the context menu. Then click on **+ new** and fill the **Create new role association** dialogue box.

There are multiple options how to grant access to a mailbox for a user in the **Create new role association** window. You can **Create new user**, you can **Search for existing worker** from the company or you can also **Send an invitation** to somebody who is not a contentACCESS user yet.



In each case you must select the “Standard user” role type from the dropdown list (a standard user has only the right to check the mailbox). On the below displayed screenshot we give access rights to the mailbox for an already existing contentACCESS user.

Create new role association

Tenant information

Role: Standard user

Invitation type: Search for existing

Search for existing user*: att

- Attila Balazsy
- Attila Fogas

✓ Resource settings

Under resource settings you can define the number of items that will be simultaneously crawled. It is not advisable to set here a value higher than the duplex number of cores of the processor as this will might extremely slow down the whole processing.

Resource settings

Worker thread count: 2

At the end never forget to save your job configurations: click on **Save** in the left upper corner of the Central Administration ribbon.

SharePoint archive plugin

This plugin was created for scanning SharePoint sites and processing & archiving certain items and its contents into a specific storage.

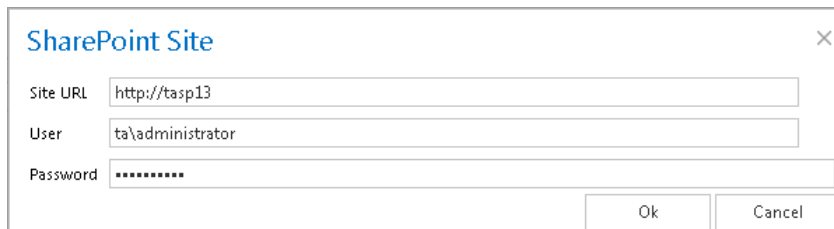
After you have successfully created a new job to SharePoint archive plugin (for more information how to create a new job please refer to section [Creating new jobs in contentACCESS](#)) can start to configure it. Navigate to the **Custom plugins → General → Jobs**, choose the job from the list. Click on ellipses (...) and choose **Configure** option from the context menu. The Job configuration page will open, where the user will be required to set the following sections:

✓ Database connection:

For database settings select an already configured connection from the dropdown list, where the metadata will be stored. (For further information how to set database connections please refer to section “How to create/configure databases – All databases”.)

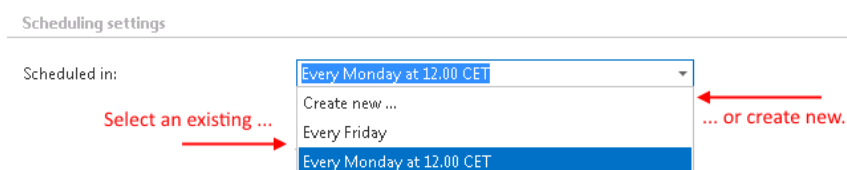
✓ SharePoint settings:

In this section the user will be required to configure the SharePoint site(s) which will be processed by the job. Click on **+ new** option and fill required fields in the **SharePoint site** dialog box, then click **OK**:



✓ Scheduling settings:

In this step the user should configure the automatic running times of the SharePoint archive job. It is possible either to select a scheduler from the list (contains already created schedulers) or to create a new scheduler via create new option. (For more information about how to set schedulers refer to the section [Schedules](#) above.)

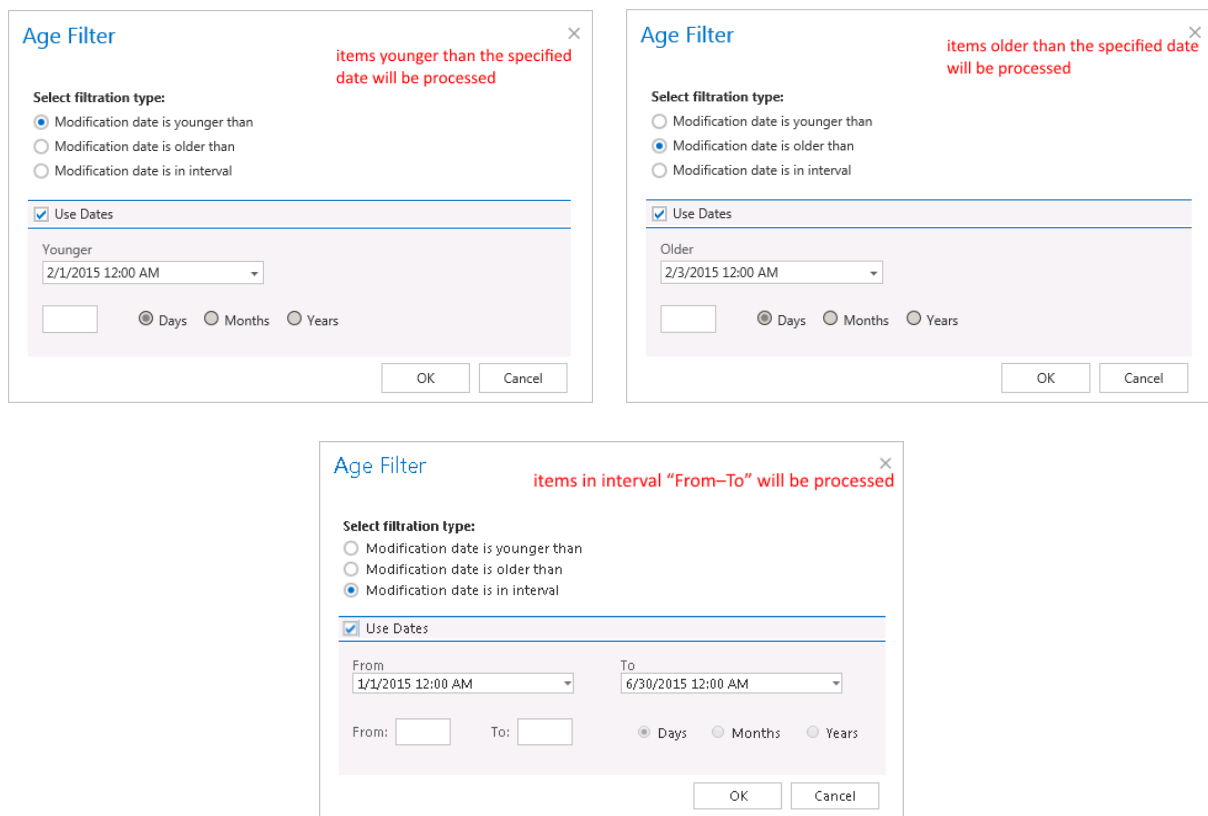


✓Item filtering:

This configuration enables for you to filter among your items by 3 types of criteria: by age, size or file type. It is also enabled to use more filters simultaneously. To activate any of these filters, check the corresponding checkbox first, then click on the button to open the filter dialog:

- **Age filter:** If you select an option from the “Select filtration type” list, and check the **Use Dates** checkbox, and specify a date, then the age filter will filter out all items, of which modification date is younger/older than this specific date. It is also possible to specify certain time interval with the **Use Dates** function. In this case the items falling under this modification date interval will be filtered out/processed. This age filtering type should be used if you would like to process documents with a specific modification date.

Examples of using dates:

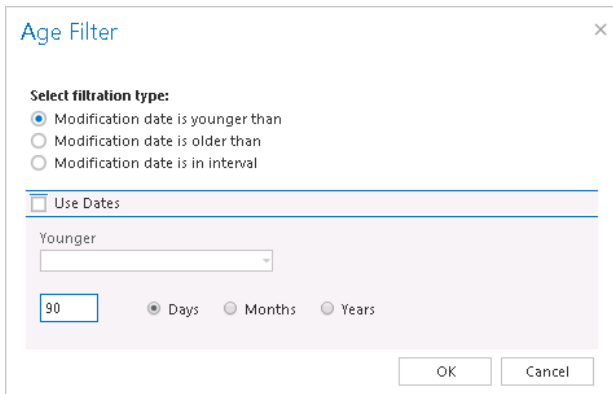


Examples of filtering using days/months/years:

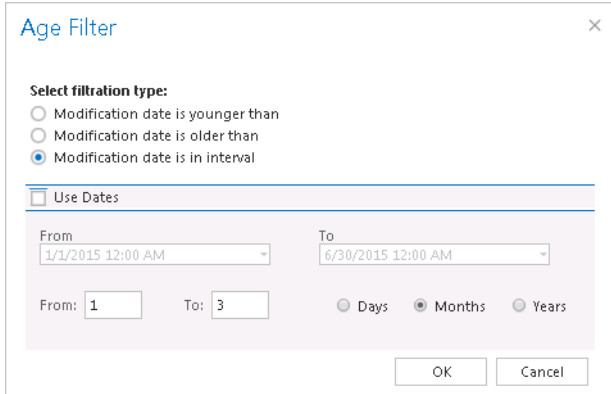
If the **Use dates** checkbox is not selected, then the date selection option becomes inactive. In this case it is allowed to filter between items where the **Modification date is younger than/Modification date is older than** a certain number of days/month/years. Enter the number into the checkbox next to the **Days/Months/Years** radio button (screenshot A). It is also allowed to filter items which belong to a



certain period of time, e.g. between items from months 1 to 3 (screenshot B). This age filtering type should be used if you would like to process items, which are older/younger than a certain number of days/months/years (e.g. items older than 1 year). If the Age filter has been set click **OK**.



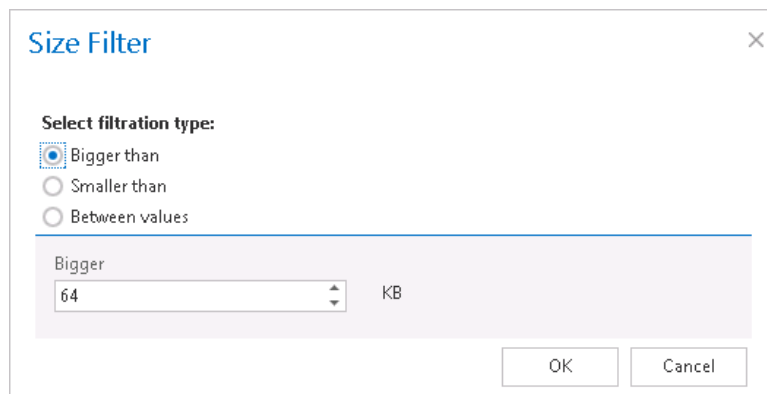
Screenshot A: Emails younger than 90 days will be processed



Screenshot B: Emails in age 1-3 months will be processed

- **Size filter:** This filter can be very useful because it enables to find the biggest files for further processing. For filtering files according to this criteria activate **Size filter** button by checking the checkbox next to it, then click on the active button.

In the **Size filter** dialog choose from the filtering types (**Bigger than**, **Smaller than**, or **Between values**), enter the size (in kilobytes) and click **OK**.



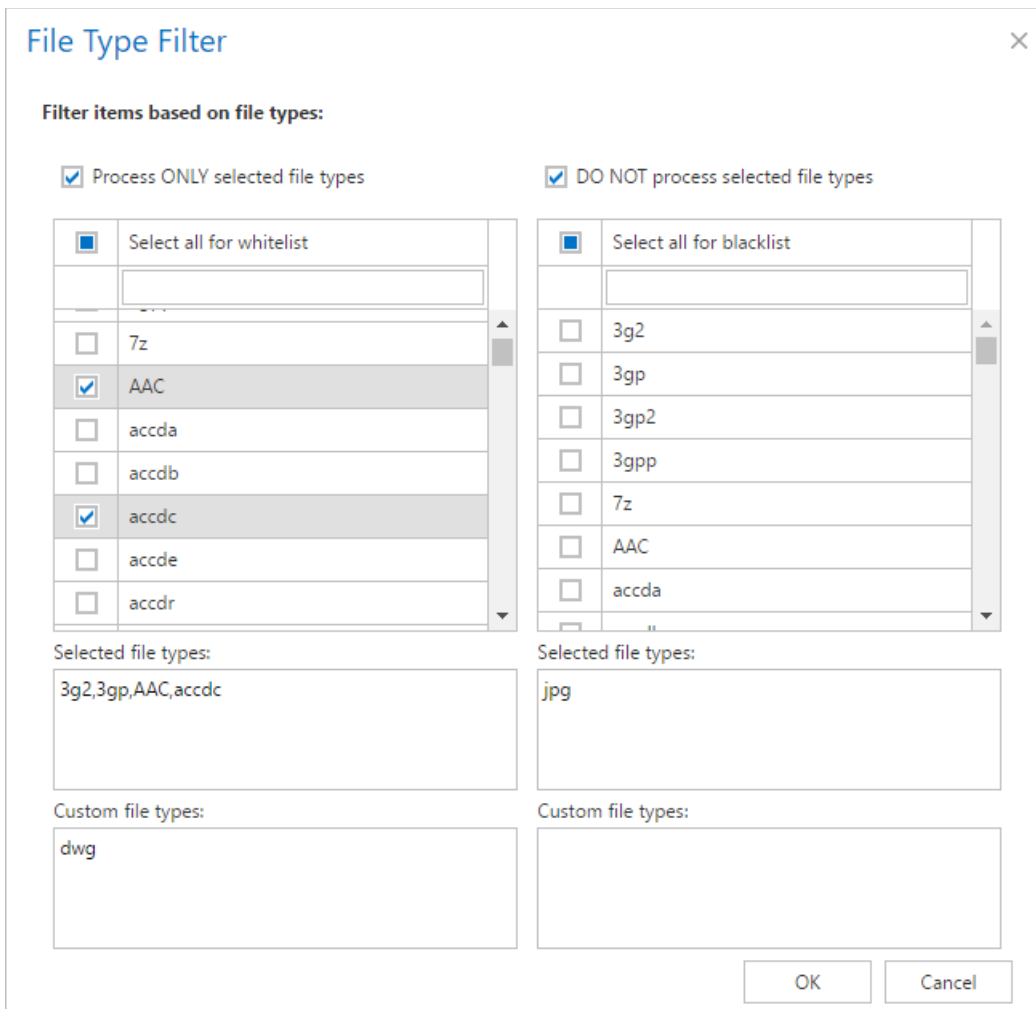
Screenshot C: Emails bigger than 64 kB will be processed

Important!!!: When the user changes the file content of an already archived item, e.g. deletes a picture from the file and saves it to the original location, (and thus the file size will be reduced e.g. from 110 to 85 kB) and file size filter is set on >100 kB, then SharePoint archive job will not archive the newly created item by the next processing. The newly created item will be saved in the original location. From this reason, it is recommended to always check the size filter settings first, if a file has not been archived by the archiving process.

- **File type filter:** This filter was improved to select certain file types for processing. For filtering between documents according to this criteria activate **File Type filter** button by checking the checkbox next to it, then click on the active button.

In the **File Type filter** dialog the user may select the file types that need to be processed (option **Process ONLY selected file types**), or he may specify file types, that should be excluded from the processing (**DO NOT process selected file types**).

The file types selected in the whitelist/blacklist are displayed below the grid in a read-only text box. Any file types (also file types that are not included in the whitelist and/or blacklist) can be specified in the **Custom file types** text box (in this use case “dwg”).



File Type Filter

Filter items based on file types:

Process ONLY selected file types

DO NOT process selected file types

Whitelist	Blacklist
<input checked="" type="checkbox"/> Select all for whitelist	<input checked="" type="checkbox"/> Select all for blacklist
<input type="checkbox"/> 7z	<input type="checkbox"/> 3g2
<input checked="" type="checkbox"/> AAC	<input type="checkbox"/> 3gp
<input type="checkbox"/> accda	<input type="checkbox"/> 3gp2
<input type="checkbox"/> accdb	<input type="checkbox"/> 3gpp
<input checked="" type="checkbox"/> accdc	<input type="checkbox"/> 7z
<input type="checkbox"/> accde	<input type="checkbox"/> AAC
<input type="checkbox"/> accdr	<input type="checkbox"/> accda

Selected file types:

Whitelist: 3g2,3gp,AAC,accdc

Blacklist: jpg

Custom file types:

Whitelist: dwg

Blacklist:

OK Cancel

After all settings have been done a summary of filter settings will be displayed under section **Item filtering**.



✓Storage settings:

For storage settings choose an already configured storage from the dropdown list. The processed binaries will be stored here. (For more information how to set storages check section [Storage](#) above.)

Storage settings

Storage name:

✓Resource settings

Under resource settings you can define the number of items that will be simultaneously crawled. It is not advisable to set here a value higher than the duplex number of cores of the processor as this might extremely slow down the whole processing.

Resource settings

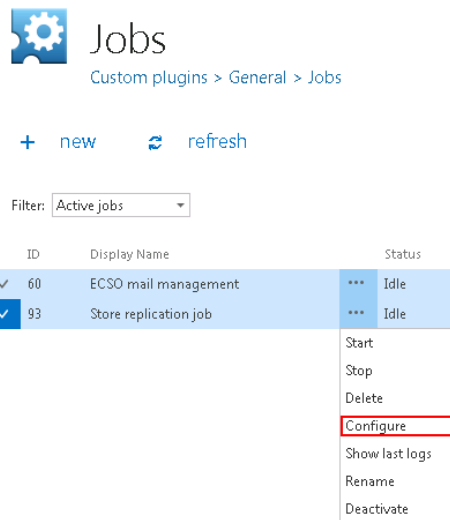
Worker thread count:

At the end never forget to save your job configurations: click on **Save** in the left upper corner of UI.

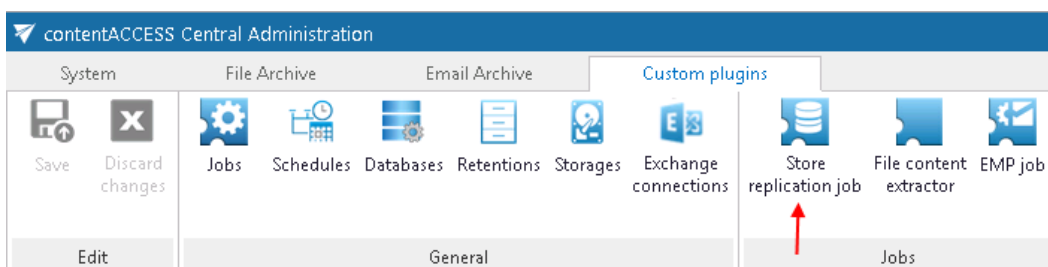
Storage replication plugin

A storage replication service is a managed service in which stored or archived data is duplicated in real time. A storage replication service provides an extra measure of protection that can be invaluable if the main storage backup system fails. Immediate access to the replicated data minimizes downtime and its associated costs. The service, if properly implemented, can streamline disaster recovery processes by generating duplicate copies of all backed-up files on a continuous basis. It can also speed up and simplify recovery from a disaster such as a fire, flood, hurricane or a virus.

After you have successfully created a new job to Store replication job (for more information how to create a new job please refer to section [Creating new jobs in contentACCESS](#)) you can start to configure the storage replication job. Navigate to the **Custom plugins** → **General** → **Jobs**, choose the job from the list. Click on ellipses (...) and choose **Configure** option from the context menu.



The same job configurations can be done with a simple click on the icon of the job in **Custom plugins** → **Jobs** group in the ribbon:





- ✓ **Database settings:** For database settings select an existing connection from the dropdown list, or create a new one, where the job will save the metadata. (For further information how to set database connections please refer to section [Databases.](#))

Database settings

Database connection:

A database by the Store replication job will contain the mapping data between the source storage and the target storage items. This means, that by a failover of the main (source) storage this database will remember the mapping data between the source item and the target item, and a successful recovery from the backup (target) storage will be ensured.

- ✓ **Scheduling settings:** The store replication job will run in times, which is set in its selected scheduler. On the screenshot below we have selected the “Always” scheduler, which will run the job without interruption. For more information how to configure scheduler settings please refer to section [Schedules](#) described above.

Scheduling settings

Scheduled in:

- ✓ **Storage settings:** Within these settings it is necessary to perform the settings of the source folder on the one hand and of the target folder(s) on the other hand. The source folder will be the primary folder. In case of any technical troubles the required documents will be recovered from the secondary (target) folder with the assistance of mapping data saved in contentACCESS.

Storage settings

Source storage name:

Target storage name:

- ✓ **Resource settings:** Under resource settings can be defined, how many items /source folders/ will be simultaneously crawled. It is not advisable to set here a value higher than the duplex number of cores of the processor as this will extremely slow down the whole processing.

Resource settings

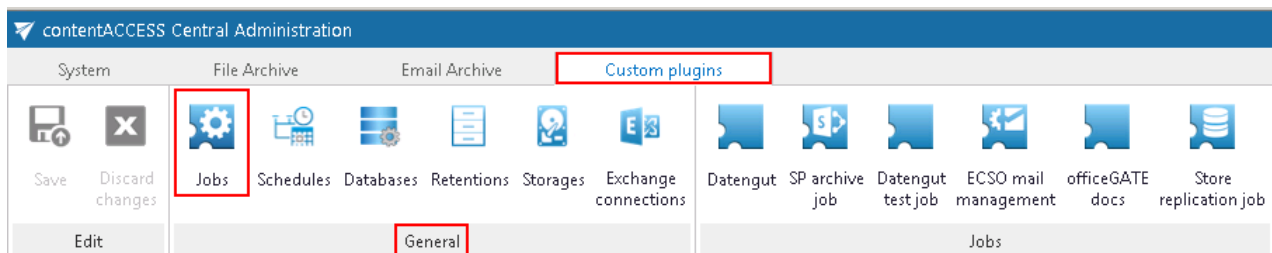
Worker thread count:

Sharing plugin

The Sharing job is used to collect files (e.g. big files that cannot be sent as email attachments) and enable to share them with other users. The job only collects these documents. The sharing process is done by [officeGATE](#), TECH-ARROW's genuine MS Outlook add-in. This section provides the user with the information how to set up a Sharing job in contentACCESS. After the job is well configured, the plugin appears in the officeGATE's navigation pane, in MS Outlook.

Setting up a Sharing job

Navigate to **Custom plugins** → **General** → **Jobs** on the Central Administration web interface to open the **Jobs** page. Here, on this page, click on **+ new**.



In the “Add new job instance” window select “Sharing” from the list of Available jobs, name it and add it to the jobs' list.

Add new job instance ✕

Available jobs:

Run on node:

Display name:

Description: Sharing files using contentACCESS

contentACCESS will prompt you to configure the job instance now.


On the job's configuration page configure a database and a storage for the Sharing job and save your settings.

contentACCESS Central Administration

System | File Archive | Email Archive | Custom plugins

Save | Discard changes | Jobs | Schedules | Databases | Retentions | Storages | Exchange connections | Datengut | SP archive job | Datengut test job | ECSO mail management | officeGATE docs | Store replication job

Edit | General | Jobs

 officeGATE
Custom plugins > Jobs > officeGATE

start immediately
 refresh
 disable auto refresh
 deactivate job
 logs

Status: **Idle**
Progress:

Storage settings

Storage name:

Database settings

Database connection:

Now the user can use the sharing function in officeGATE, directly from his MS Outlook.

Datengut plugin

This custom plugin enables to connect the Datengut Document Management System with officeGATE. Based on the exact configurations of a Datengut job the officeGATE user is allowed to

- Collaborate on the Datengut files using officeGATE
- Collaborate on the Datengut files using officeGATE + Synchronize email categories in multiple mailboxes if the same email is assigned to one Datengut project using officeGATE

If the Datengut job is already created (for more information about creating jobs refer to [Creating new jobs in contentACCESS](#)), open its page to configure it.

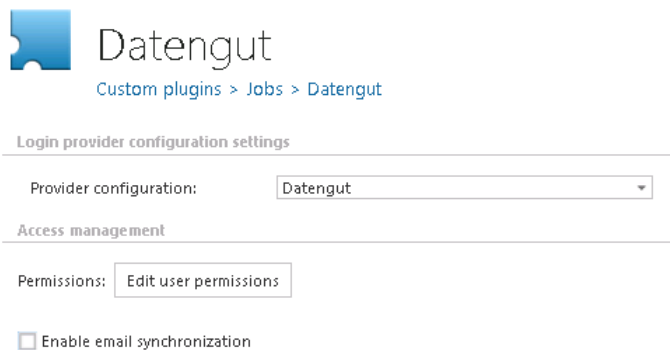
✓ Login provider configuration settings

Select the Datengut login provider that you have already configured in section **System** → **Security** → **Login providers** (refer to chapter [Login providers](#) how to create it).

✓ Access management

If you want to grant access to Datengut for more contentACCESS users, click on “Edit user permissions” button and configure a new user.

If you wish synchronize email categories in multiple mailboxes, check the “Enable mailbox synchronization” checkbox. If you would not like to synchronize emails, left it unchecked and save your configurations above.



The screenshot shows the Datengut configuration page. At the top left is the Datengut logo, a blue square with a white puzzle piece shape. To its right is the text "Datengut" and a breadcrumb trail "Custom plugins > Jobs > Datengut". Below this is a section titled "Login provider configuration settings" with a dropdown menu for "Provider configuration:" set to "Datengut". Underneath is an "Access management" section containing a button labeled "Permissions: Edit user permissions" and a checkbox labeled "Enable email synchronization" which is currently unchecked.

If email synchronization is enabled, the Datengut job updates the Email synchronizer job’s queue with the information, if the given category should be added/deleted on the given email. The user drag&drops (assigns) an email to a Datengut project in officeGATE, and the Datengut job periodically updates the necessary data in the queue.

To enable email synchronization the following extra settings need to be configured:

- **Database connection** - select a database where the Datengut job will write the metadata
- **Plugin job** - select the Email synchronizer job that is already configured (more information [here](#))
- **Username, Password:** specify the user credentials to be used to connect with the Datengut system
- **Scheduled in:** set the scheduler which will trigger the job in the given time periods
- **Notification settings:** if you need to get emails about any possible warning or errors, configure it with the recipient list [here](#)



Enable email synchronization

start immediately

Database settings

Database connection:

Plugin configuration

Plugin job:

User credentials

Username:

Password:

Scheduling settings

Scheduled in:

Notification settings

Send when:

Recipient list:

Email synchronizer plugin

Email Synchronizer plugin's function is to synchronize properties of the same email in multiple mailboxes. Currently the following actions are available:

- Add category: adds one or more categories to an email,
- Remove category: removes one or more categories from an email.

The email synchronizer job has a queue that the job checks periodically for new actions to be executed on emails. This queue is filled up by other plugins.

This chapter describes how an Email synchronizer job is configured.

Setting up an Email synchronizer job

After an Email synchronizer job is created on page **Custom plugins** → **General** → **Jobs** you may start to configure it. For more information how to create jobs refer to section [Creating new jobs in contentACCESS](#) of this guide.

On the configuration page of the given job the user is required to specify the following settings:

- ✓ **Exchange connection settings**

First the connection with the Exchange server must be established. Before processing, the job builds a list of all mailboxes and mailbox groups found on the specified Exchange server. Only those queue items will be processed which mailbox is handled by the Exchange server.



The process how an Exchange connection can be set is described in section [Exchange connections](#) of this guide. Further select this Exchange connection on the synchronizer job's configuration page.

✓ **Database settings**

Set a database where the job will write the necessary data. For more information how to create databases refer to section [Databases](#).

✓ **Scheduling settings**

Using schedulers the administrator may automatize the running times of the given job. The mailboxes are periodically synchronized with the categories written into the queue in time intervals which is set here. For more information how to set schedulers refer to section [Schedules](#) above.

✓ **Processing configurations**

There are 2 available methods how to speed up the synchronization process:

- **Use email archive database to enhance performance:** After processing emails with EntryId, the plugin continues with processing emails which have InternetMessageId only. Using this option the process can be speeded up if contentACCESS is used for email archiving. The plugin first searches for the queue item's EntryId in the archive. If it finds it, the queue item is added to the list of queue items with EntryId.
- **Search only for one email with MessageID in mailbox:** In case that the same email message exists in the mailbox multiple times, only the first email will be processed (marked with the given category) and all other emails in the given mailbox will be ignored. The first email will be marked in the recipient mailboxes, too (if exists).

✓ **Notification settings**

Using this option the administrator may set when the notification emails need to be sent (always, only when errors occur, when both errors and warnings occur, or never) by the job. The recipient list of such emails is set in this section as well.

✓ **Resource settings**

The number of threads running in parallel is set here. The value is set to "2" by default.



contentACCESS Central Administration

System | File Archive | Email Archive | **Custom plugins**

Save | Discard changes | Jobs | Schedules | Databases | Retentions | Storages | Exchange connections | Perceptive | Datengut test job | officeGATE | SP archive job | Store replication inh | Datengut | ECSO mail management | **Email synchronizer plugin**

Edit | General | **Jobs**

Email synchronizer plugin

Custom plugins > Jobs > Email synchronizer plugin

start immediately
 refresh
 disable auto refresh
 deactivate job
 logs
 edit

Status: **Idle**
Progress:

Exchange connection settings

Exchange connection name:

Database settings

Database connection:

Scheduling settings

Scheduled in:

Processing configuration

Use email archive database to enhance performance
 Search only for the first email with MessageId in mailbox

Notification settings

Send when:
 Recipient list:

Resource settings

Worker thread count:



contentWEB

What is contentWEB? contentWEB is a web user interface for the contentACCESS archive, which ensures an over-simple read-only or full access to any items (files and emails), which have been previously archived/processed by contentACCESS. For the end user these items are also accessible from any mobile device. The searching, item listing, recovery and export functions of contentWEB make the work with these archive items more comfortable and intuitive.

The only condition to achieve this is, that the end user must have access permission to the mailboxes/folders of which contents he would like to access. Such permissions must be granted by the system administrator. Email archive access permissions can be granted in the contentACCESS address book (on page View address book, more information [here](#)), File archive access permissions can be granted in the File archive's provisioning settings according to the steps described in [this](#) chapter.

The main advantages of using contentWEB are as follows:

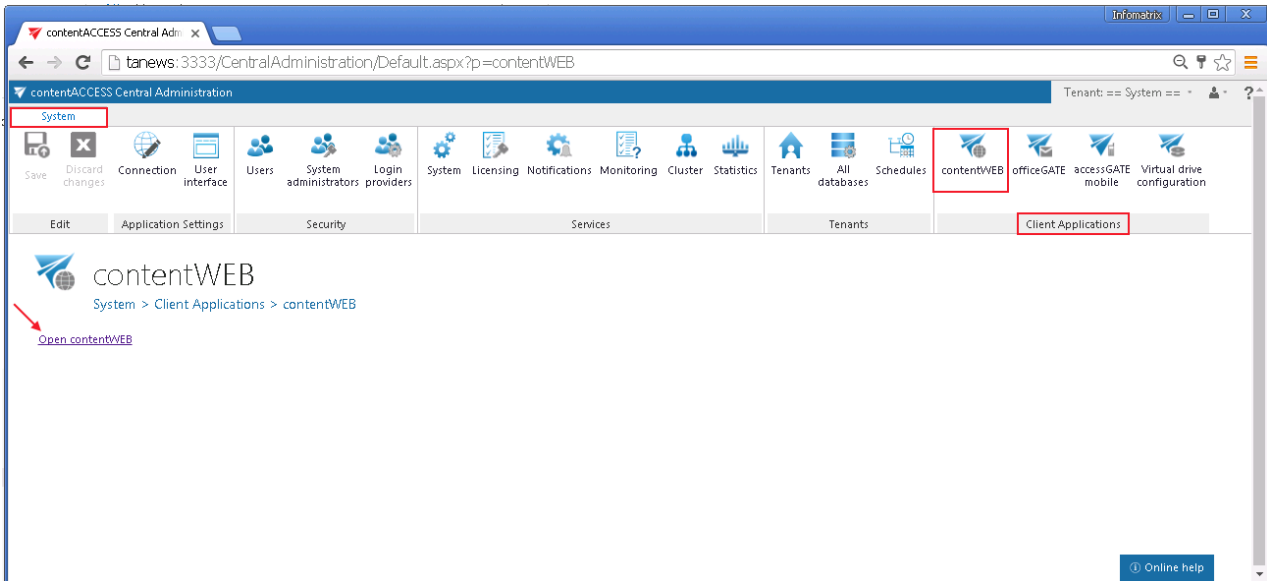
- ✓ Quick and easy access to the archived documents with the help of mobile devices.
- ✓ Ability to search between the archived items according to the certain parameters of an archived item (To, From, Modified by, Subject).
- ✓ Searching in the full text contents of the documents across multiple shares, using File Content Extractor plugin.
- ✓ Easy item sorting, item listing.
- ✓ Zero term search, advanced search.
- ✓ Active/inactive document view.
- ✓ Option to view document versions in the file archive.
- ✓ Recovery option in file archive.
- ✓ Export function to PST and ZIP format.
- ✓ One-click login with the help of external providers.
- ✓ Saving the last view of the logged in user.
- ✓ Ability to grant access to the archived documents for an explicit user.

Logging in to contentWEB

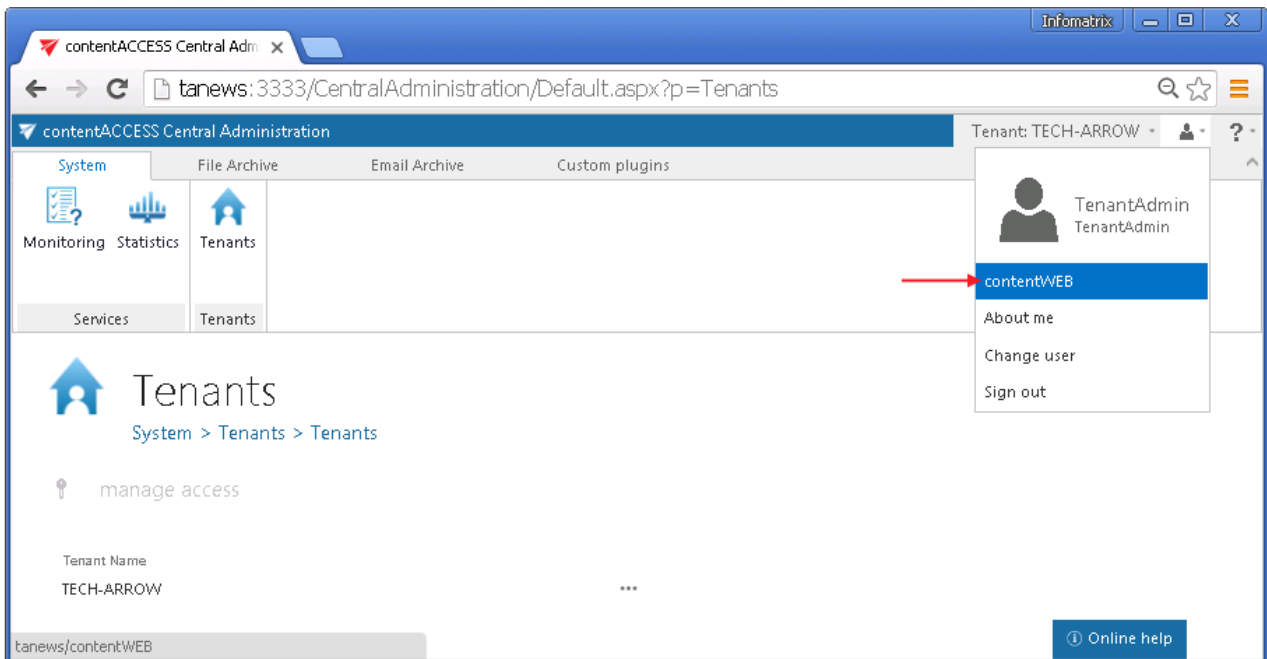
System administrators can log in to contentWEB directly from the Central Administration using the "Open contentWEB option" on the "contentWEB" page (**System** tab → **Client Applications** group →



contentWEB button). By clicking on “Open contentWEB” the login page opens. Enter your credentials and log in.



Tenant administrators (and also **system administrators**) can log in to contentWEB directly from the Central Administration using the login menu in the upper right corner of the interface. Open the menu, select “contentWEB” and the login page opens.

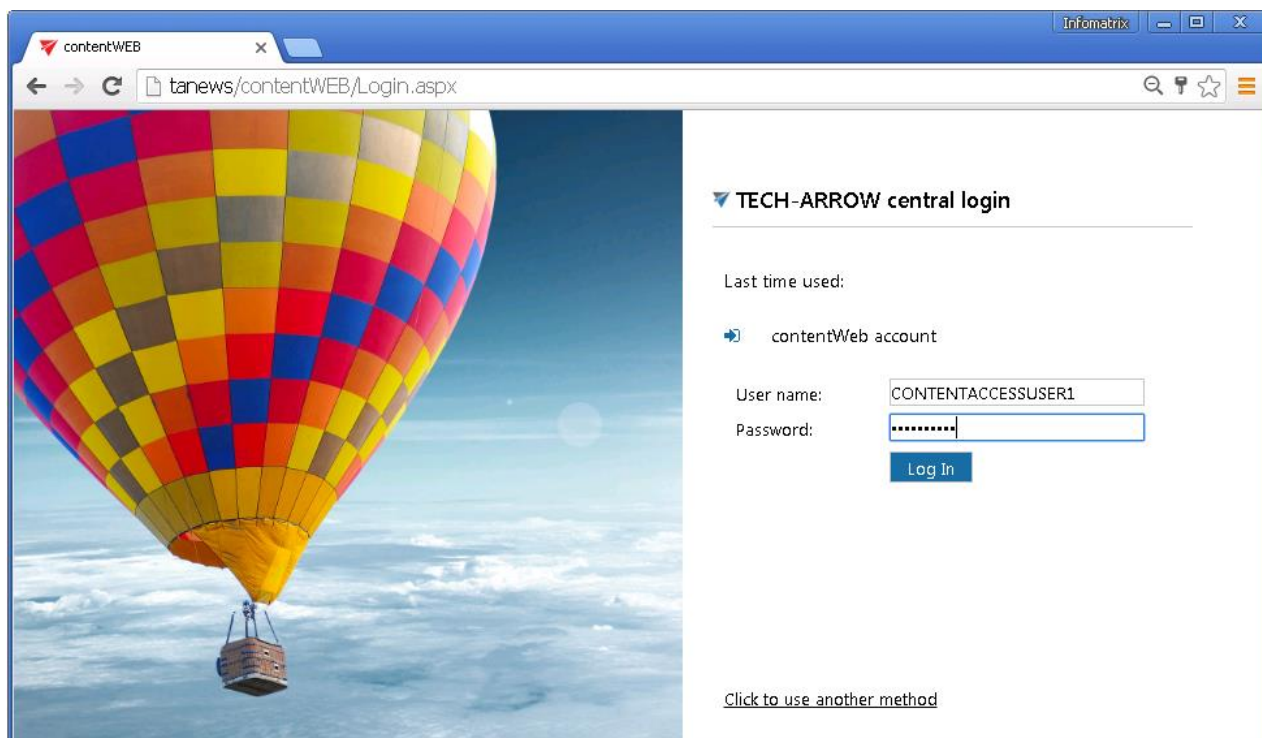


The end users, who do not have an access to the contentACCESS Central Administration page, can log in to contentWEB using the following sample URL:



[http://\[Server Name\]/contentWEB/Login.aspx](http://[Server Name]/contentWEB/Login.aspx)

The necessary rights must be granted for them in the Email archive/File archive settings as described earlier.

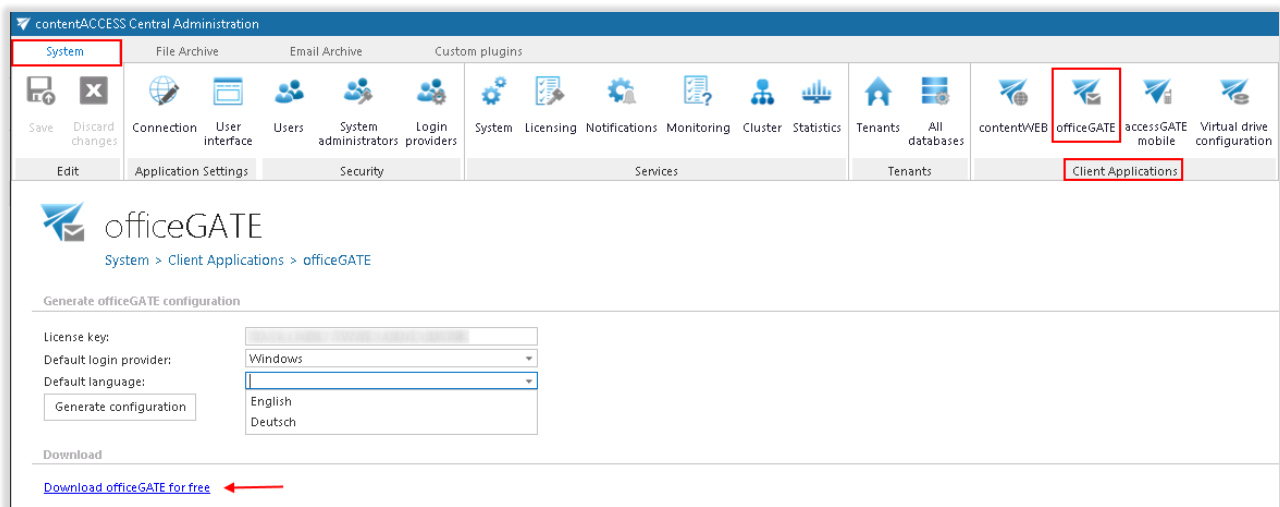


contentWEB login page

officeGATE

officeGATE is an MS Outlook add-in connecting the email client with the local file-system and with SharePoint Online, contentACCESS, OneDrive, Dropbox, fileNshare and many other providers. With officeGATE it is not needed to switch to other applications when the user would like to access his files. It can be done directly from Outlook. The user can also easily access the archived documents in contentACCESS directly from here.

officeGATE can be downloaded for free from the respective page of contentACCESS Central Administration. Navigate to **System** → **Client applications** → **officeGATE** button on the ribbon and download a free version of officeGATE from the link.



Installing officeGATE with Group policy (GPO)

officeGATE can be globally installed using Group policy. This simplifies the installation process of the product in a distributed company environment. Group policy installation of officeGATE is applied on 2 levels:

1. **First the officeGATE XML files are distributed** to each user in the domain. This XML file contains the global configurations of officeGATE listed below.

This XML file containing global officeGATE settings is generated on the **officeGATE** page of Central Administration. The following global settings are specified:

License key – enter here the officeGATE license key

Default login provider – select the desired login method that should be applied when establishing connection between officeGATE and contentACCESS

Default language – select here the default language of the application. If a language is not specified here, then the language of MS Outlook will be automatically used.

Click **Generate configuration** and save the distributable XML file.



officeGATE

System > Client Applications > officeGATE

Generate officeGATE configuration

License key:	<input type="text"/>
Default login provider:	Windows ▾
Default language:	English ▾
<input type="button" value="Generate configuration"/>	Deutsch

2. Further the **officeGATE setups are distributed** for each domain user and the product is automatically installed.

For more information about the XML distribution and installation using Group policy check [this](#) guide.

accessGATE Mobile

accessGATE Mobile is a native mobile device application over which the user can easily access his archived documents from contentACCESS. An offline access is also ensured for read-only use. To be able to open the application from a mobile device, **the administrator needs to perform the following steps in contentACCESS:**

1. It is mandatory to **install the proxy server over HTTPS** connection from the actual contentACCESS setup package. (for more information refer to section [Installing the Proxy server](#));
2. The proxy server must be **published over HTTPS connection in the IIS** (Internet Information Services) Manager. (For more information refer to [Installing the Proxy web services](#).);
3. On the system page of contentACCESS Central Administration, under the external accessibility settings the **proxy server must be configured to use HTTPS connection.**



Note: if the FQDN settings are configured to use HTTP connection, the administrator will be warned about it on the accessGATE mobile page in Central Administration:

Download

[Android version](#)
[iOS version](#)

Connection parameters

Connection url: Mobile access requires 'https' protocol. Please change it in 'System/System' under 'External accessibility settings'.

Login: _____

Password: _____

Please note, that the login information displayed above is feasible for the user currently logged on into Central Administration. Each user wanting to log in to accessGATE Mobile should use his own contentACCESS Forms login and password.

The screenshot shows the 'contentACCESS Central Administration' web interface. The 'System' menu item is highlighted in the top navigation bar. Below the navigation bar, the 'System' settings page is displayed. The 'External accessibility settings' section is visible, showing the 'Retrieve server FQDN' field set to 'https://tanews.tech-arrow.com:443'. A red arrow points to the 'https' dropdown menu. Below this field, there is a 'Test' button.

4. The administrator has to create a new Forms user login for the already existing contentACCESS user (if the accessGATE mobile access must be granted to an already existing user), or to create a new user with Forms provider in contentACCESS (if the new user is not currently present in contentACCESS); over these credentials will the end user log in to accessGATE mobile:



The accessGATE mobile application can be downloaded on a mobile device (either on android or iOS) from contentACCESS Central Administration, from the accessGATE mobile page (**System** tab → **Client applications** → **accessGATE Mobile**). You can also search for accessGATE mobile in Play store or Apple store to install the app on your mobile device.

contentACCESS Central Administration

System | File Archive | Email Archive | Custom plugins

Save | Discard changes | Connection | User interface | Users | System administrators | Login providers | System | Licensing | Notifications | Monitoring | Cluster | Tenants | All databases | contentWEB | officeGATE | accessGATE mobile | Virtual drive configuration

System > Client Applications > accessGATE mobile

Download

[Android version](#)
[iOS version](#)

Connection parameters

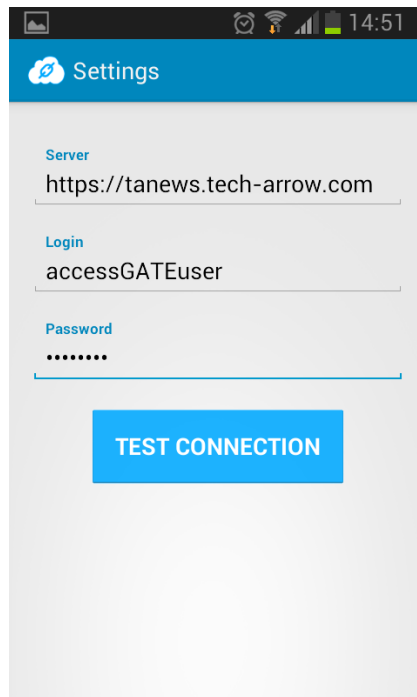
Connection url: https://tanews.tech-arrow.com
Login: system
Password: *****

Please note, that the login information displayed above is feasible for the user currently logged on into Central Administration. Each user wanting to log in to accessGATE Mobile should use his own contentACCESS Farms login and password.

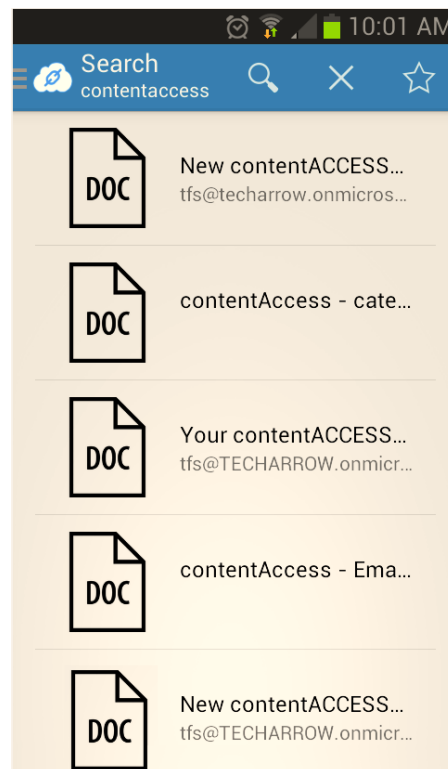
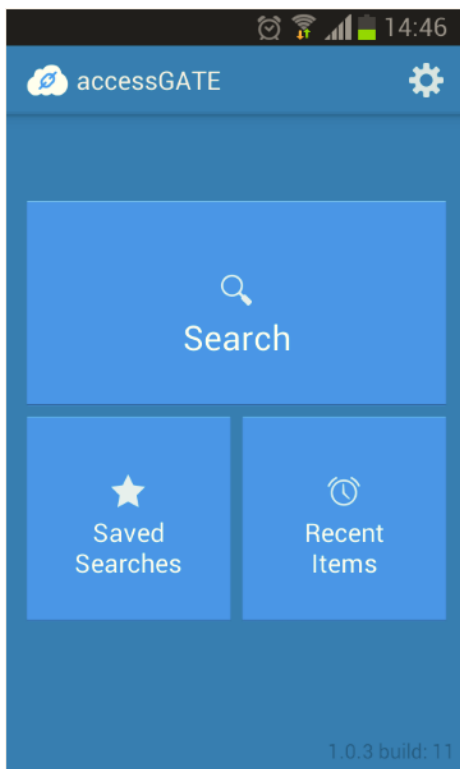
Once the user has successfully downloaded the application on the mobile device and opens the application, he will be asked to type in the server name (connection URL) and the login credentials. The server name (connection URL) is accessible (for the administrator) on the accessGATE mobile's page in the contentACCESS Central Administration.



The user will need to log in with the credentials of the Forms user that has been created above (in step "4/c").



Once the connection is established, the search page opens and end user will be able to search in the archive on which he has permissions.





Virtual drive

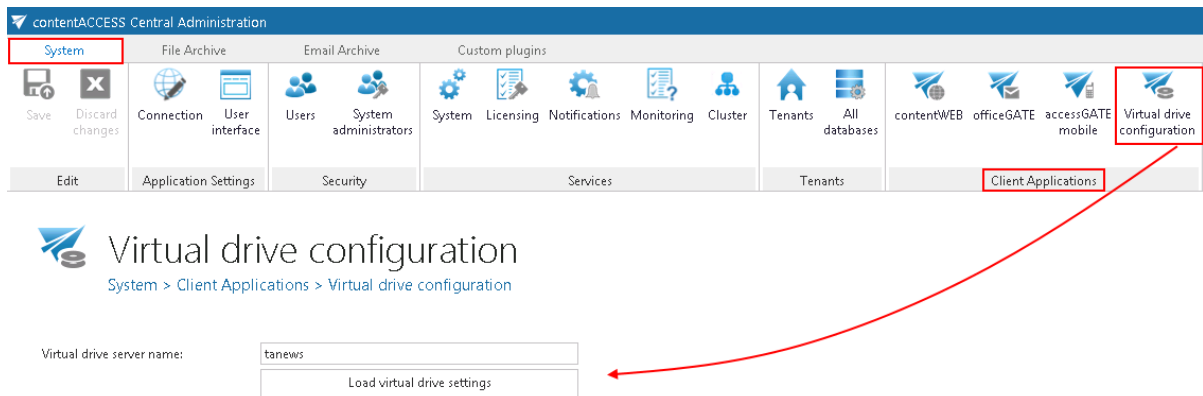
What is a virtual drive? It is a virtual file system that presents/virtualizes any data (files and folders of an actual disk) to the end-user. Virtual drive is a non-existing drive that does not physically exist in the computer, but it contains the exact structure of the items that have been processed by contentACCESS.

The contentACCESS Virtual Drive was developed by TECH-ARROW and serves as a key access point between the end user and the contentACCESS File Archive. Virtual Drive is a must-to application for user who have File system Archive and would like to use shortcutting. The user can view their archived files from here. A file opened through the Virtual drive is opened in read-only mode. By default only the active items can be viewed on the virtual drive (active items = items in the archive, which have an original file or shortcut in the file system, too). To enable inactive view, the “Show inactive view” checkbox must be selected on the Virtual drive configuration page. This drive can be also shared with another users, so they can easily browse for their associated archived files in case of need. The original folder/ item permissions are also applied for the files/ folders in virtual drive. A user can access only the items on which he has access permissions in the original file system.

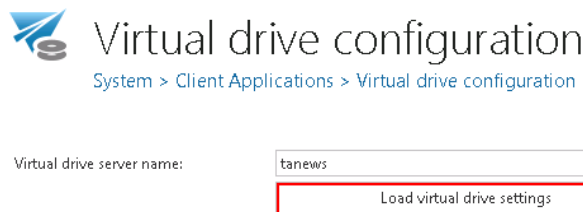
Note: If the shortcut pointing to the archive file is opened and edited through the Virtual drive, it must be saved back to the original file location. For more information refer to section [Editing of already archived files, file versions in File system archive](#).

After the Virtual drive was installed (link to the Virtual drive setup is accessible in the Tools of the contentACCESS setup package), it is necessary to configure its settings on the Virtual drive configuration page.

In contentACCESS Central Administration navigate to **System** tab → **Client Applications** → **Virtual drive configuration** control to open this page:



Enter the server name - where virtual drive (henceforth “VD”) is installed – into the **Virtual drive server name** textbox. To load the actual settings of VD click **Load virtual drive settings** button.

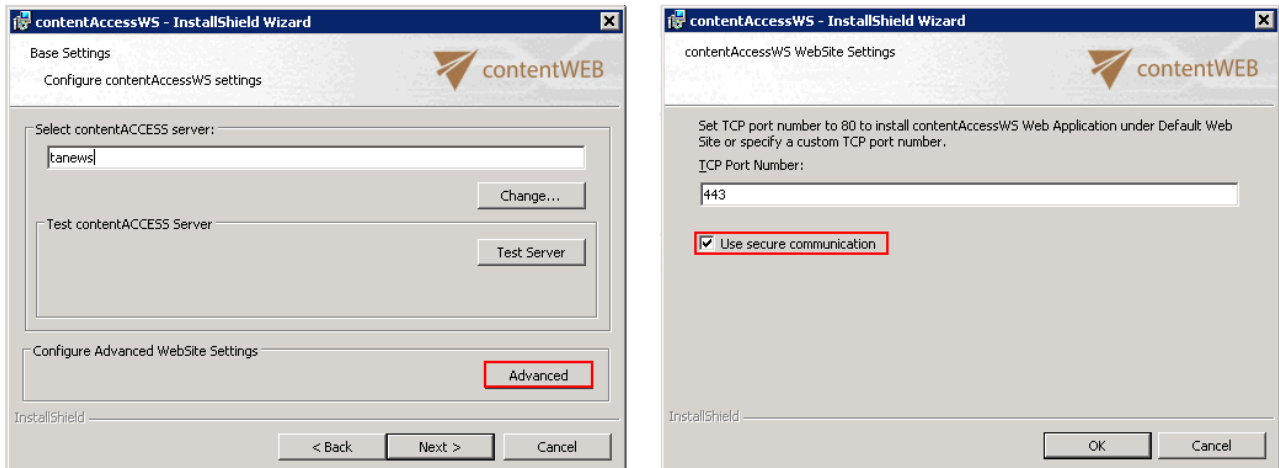


contentACCESS server connection

It is possible to connect the virtual drive to contentACCESS either over the proxy with a secure (HTTPS) or insecure (HTTP) connection, or directly, over HTTP connection. The connection over a proxy is recommended, if the virtual drive is installed somewhere in the cloud, or on a server which differs from the contentACCESS server. It is recommended to use a direct connection (without using the proxy), if the virtual drive and contentACCESS are installed on the same server.

3. Virtual drive configurations, if secure communication should be used (over the proxy):

The proxy must be installed over HTTPS connection (HTTPS connection must be selected during the installation process of the proxy);



The connection of the virtual drive to contentACCESS must be established over a HTTPS connection; port 443 must be entered into the URL name.

contentACCESS server connection

contentACCESS server name: :

4. Virtual drive configurations, if the virtual drive will connect to the contentACCESS server directly:

By a direct connection select HTTP connection when specifying the contentACCESS server name URL. The virtual drive and contentACCESS are installed on the same server, so the “localhost” URL can be configured. Enter 8736 for the port number.

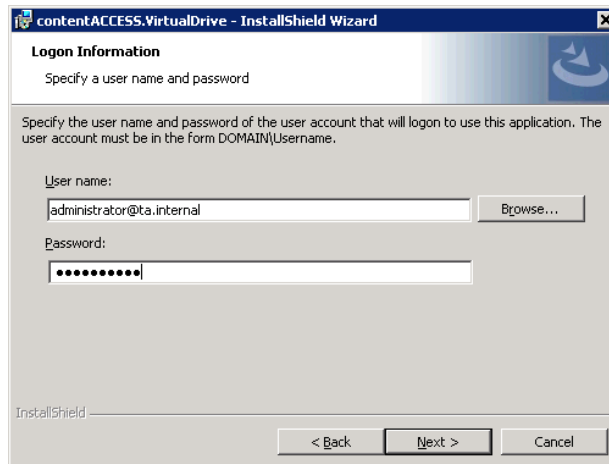
contentACCESS server connection

contentACCESS server name: :

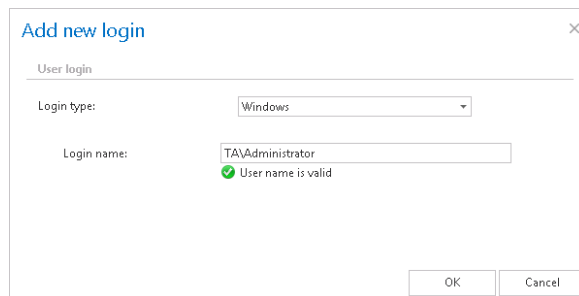
In the next steps it is required to specify the user, over which VD will connect to contentACCESS.

To establish the connection with the contentACCESS server, the system user, or a Windows user can be used. The Virtual drive will connect to contentACCESS over these credentials. By default, the contentACCESS system user is used for this connection. If you do not want to change these connection settings, leave the “Use Windows authentication checkbox” unchecked. To enable the connection with Windows account the following steps must be performed:

- When installing the Virtual drive the Windows user credentials should be specified. This VD service (GATE.contentAccess.VirtualDrive.Service) user will be taken to log in to contentACCESS.



- In contentACCESS the corresponding Windows user login needs to be created (under System → Security → Users...double click on the user...add Windows user login in the User logins section...fill required fields in the **Add new login** dialog).



- On the configuration page of virtual drive, the “Use Windows authentication” checkbox must be selected:

Use windows authentication (using the service user 'TA\Administrator')

contentACCESS user:

contentACCESS password:

The main advantage of a Windows user is: if the system user credentials are changed by the user and he forgot to change it in the Virtual drive settings, Virtual drive will be disabled to connect to contentACCESS. If a Windows user is used, such problems can be avoided.

To finalize the VD configuration continue with configuring the following settings. Some of them are set by default, these can be left as they are:



Virtual drive settings

Cache size limit(MB):	<input type="text" value="1"/>
Cache timer interval(ms):	<input type="text" value="10000"/>
Debug:	<input checked="" type="checkbox"/>
Download locally:	<input checked="" type="checkbox"/>
Folder refresh interval(s):	<input type="text" value="10"/>
Root mount point:	<input type="text" value="G:"/>
Temp path:	<input type="text" value="C:\Users\ADMINI~1.TA\AppData\Local\Temp\content"/>
Timeout:	<input type="text" value="0"/>
Show inactive items:	<input type="checkbox"/>

Virtual drive management

Virtual drive status:	Started
	<input type="button" value="Start virtual drive"/> <input type="button" value="Stop virtual drive"/>

Cache size limit (MB): When opening archived data, the processed data are cached to unburden virtual drive from unnecessary operations, or to shorten access time to this data. This function helps to unburden the VD server. Here we can define the maximum size of data, which will be downloaded and stored by the virtual drive. In our case we set this limit on 1,000 MBs (=1 GB).

Cache timer interval (ms): The time set here will define the intervals when the cache is “cleaned”. At the intervals which are set here, the cache will check if the cache size limit has not been exceeded.

Debug: If you check this textbox, then all errors, warnings that have been noticed will be written into the .log file or into the debug view. It is recommended to turn on this function only if the user notices some problems with running of virtual drive, otherwise these notifications might slow down the operations.

Download locally: contentACCESS data can be stored a) as files in the cache, or b) as content in the memory. If you check option “Download locally”, then files will be stored in the cache.

Folder refresh interval(s): The virtual drive folder will be refreshed in time intervals which is set here. At these intervals the newly archived files will become visible in the virtual drive folder.

Root mount point: Here you can choose an available disk for the Virtual drive. By default it is disk “Z”, but it is allowed to change it.

Temp path: Any files that are opened through virtual drive will be stored temporarily here.

Timeout: The duration of running of all operations can be determined here. After this time period the operation will be interrupted. Value “0” means that the operation will be waiting to infinity.



Show inactive items: the user may set here, if he wants to see the inactive items (items in the archive, which do not have an original or shortcut in the file system) in the virtual drive, or not. In default view, the active items are shown only.

Virtual drive status: This will show the current state of the virtual drive. With the buttons below you can start/stop the virtual drive. To connect to the G drive and start the virtual drive click on **Start virtual drive**.

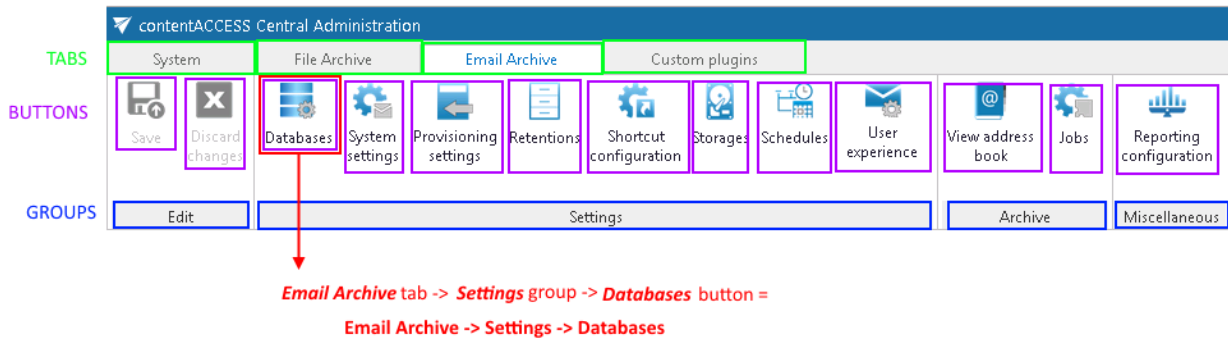
Do not forget to save the configurations.

Terms of use

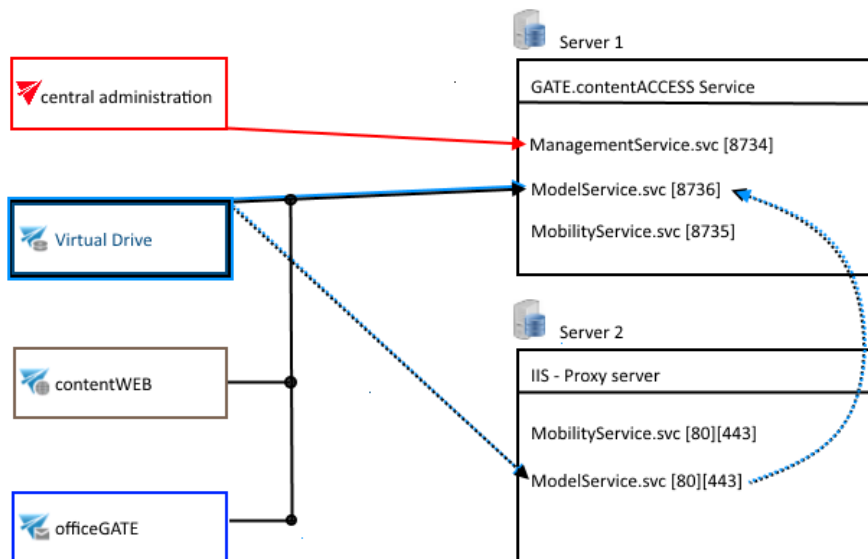
Definition of terms:

TAB, GROUP, BUTTON

contentACCESS Central Administration user interface is divided into tabs, groups and buttons. Each tab contains several groups, which also contain several buttons. When the reader of the manual encounters with a path containing 3 levels, e.g. **Email Archive** → **Settings** → **Databases**, then this path will navigate the user through the following levels: **TAB** → **GROUP** → **BUTTON**.



Schema of services used by the products of TECH-ARROW

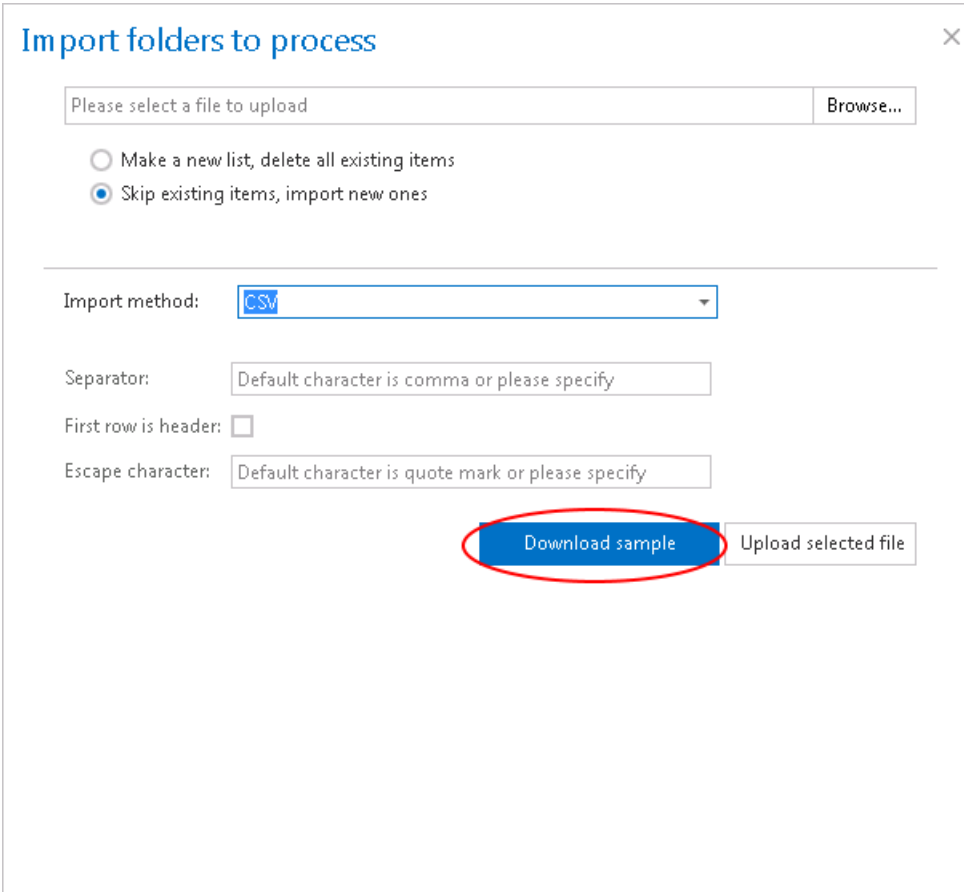


FAQ

Download sample for the file to be imported does not work

PROBLEM

The sample file for the file to be imported into contentACCESS cannot be downloaded:



Import folders to process [X]

Please select a file to upload [Browse...]

Make a new list, delete all existing items
 Skip existing items, import new ones

Import method: [CSV]

Separator: [Default character is comma or please specify]

First row is header:

Escape character: [Default character is quote mark or please specify]

Download sample [Upload selected file]

SOLUTION

Pop-ups must be allowed in your browser.

